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   FILE 'REGISTRY' ENTERED AT 10:36:07 ON 15 APR 2007
L1               STRUCTURE UPLOADED
L2             3 S L1 SSS SAM
L3            65 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 10:36:56 ON 15 APR 2007
L4            27 S L3
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PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2

* * * * * * * * * * Welcome to STN International * * * * * * * * * *

NEWS 1		Web Page URLs for STN Seminar Schedule - N. America
NEWS 2		"Ask CAS" for self-help around the clock
NEWS 3	DEC 18	CA/CAplus pre-1967 chemical substance index entries enhanced with preparation role
NEWS 4	DEC 18	CA/CAplus patent kind codes updated
NEWS 5	DEC 18	MARPAT to CA/CAplus accession number crossover limit increased to 50,000
NEWS 6	DEC 18	MEDLINE updated in preparation for 2007 reload
NEWS 7	DEC 27	CA/CAplus enhanced with more pre-1907 records
NEWS 8	JAN 08	CHEMLIST enhanced with New Zealand Inventory of Chemicals
NEWS 9	JAN 16	CA/CAplus Company Name Thesaurus enhanced and reloaded
NEWS 10	JAN 16	IPC version 2007.01 thesaurus available on STN
NEWS 11	JAN 16	WPIDS/WPINDEX/WPIX enhanced with IPC 8 reclassification data
NEWS 12	JAN 22	CA/CAplus updated with revised CAS roles
NEWS 13	JAN 22	CA/CAplus enhanced with patent applications from India
NEWS 14	JAN 29	PHAR reloaded with new search and display fields
NEWS 15	JAN 29	CAS Registry Number crossover limit increased to 300,000 in multiple databases
NEWS 16	FEB 15	PATDPASPC enhanced with Drug Approval numbers
NEWS 17	FEB 15	RUSSIAPAT enhanced with pre-1994 records
NEWS 18	FEB 23	KOREAPAT enhanced with IPC 8 features and functionality
NEWS 19	FEB 26	MEDLINE reloaded with enhancements
NEWS 20	FEB 26	EMBASE enhanced with Clinical Trial Number field
NEWS 21	FEB 26	TOXCENTER enhanced with reloaded MEDLINE
NEWS 22	FEB 26	IFICDB/IFIPAT/IFIUDB reloaded with enhancements
NEWS 23	FEB 26	CAS Registry Number crossover limit increased from 10,000 to 300,000 in multiple databases
NEWS 24	MAR 15	WPIDS/WPIX enhanced with new FRAGHITSTR display format
NEWS 25	MAR 16	CASREACT coverage extended
NEWS 26	MAR 20	MARPAT now updated daily
NEWS 27	MAR 22	LWPI reloaded
NEWS 28	MAR 30	RDISCLOSURE reloaded with enhancements
NEWS 29	MAR 30	INPADOCDB will replace INPADOC on STN
NEWS 30	APR 02	JICST-EPLUS removed from database clusters and STN

NEWS EXPRESS	NOVEMBER 10 CURRENT WINDOWS VERSION IS V8.01c, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 25 SEPTEMBER 2006.
NEWS HOURS	STN Operating Hours Plus Help Desk Availability
NEWS LOGIN	Welcome Banner and News Items
NEWS IPC8	For general information regarding STN implementation of IPC 8
NEWS X25	X.25 communication option no longer available

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* * * * * * * * * * * * * * * STN Columbus * * * * * * * * * * * * * * *

FILE 'HOME' ENTERED AT 10:35:34 ON 15 APR 2007

=> file reg
COST IN U.S. DOLLARS SINCE FILE TOTAL

	ENTRY	SESSION
FULL ESTIMATED COST	0.21	0.21

FILE 'REGISTRY' ENTERED AT 10:36:07 ON 15 APR 2007

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 13 APR 2007 HIGHEST RN 930268-90-9
DICTIONARY FILE UPDATES: 13 APR 2007 HIGHEST RN 930268-90-9

New CAS Information Use Policies, enter HELP USAGETERMS for details.

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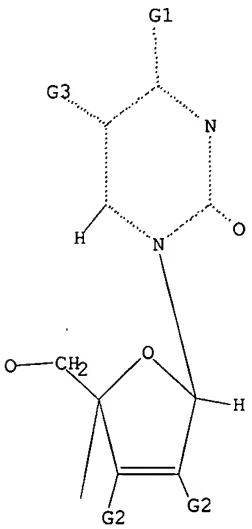
http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Program Files\Stnexp\Queries\10781305amd.str

L1 STRUCTURE UPLOADED

=> d l1
L1 HAS NO ANSWERS
L1 STR



G1 O,NH
G2 H,Cl,Br,F,I
G3 C,H,X

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss sam
SAMPLE SEARCH INITIATED 10:36:33 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 61 TO ITERATE

100.0% PROCESSED 61 ITERATIONS 3 ANSWERS
SEARCH TIME: 00.00.01

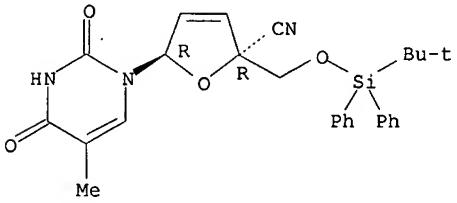
FULL FILE PROJECTIONS: ONLINE **COMPLETE**
BATCH **COMPLETE**
PROJECTED ITERATIONS: 752 TO 1688
PROJECTED ANSWERS: 3 TO 163

L2 3 SEA SSS SAM L1

=> d l2

L2 ANSWER 1 OF 3 REGISTRY COPYRIGHT 2007 ACS on STN
RN 774226-11-8 REGISTRY
ED Entered STN: 03 Nov 2004
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2R,5R)-(9CI) (CA INDEX NAME)
FS STEREOSEARCH
MF C27 H29 N3 O4 Si
SR CA
LC STN Files: CA, CAPLUS, CASREACT

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

1 REFERENCES IN FILE CA (1907 TO DATE)
1 REFERENCES IN FILE CAPLUS (1907 TO DATE)

=> s l1 full
FULL SEARCH INITIATED 10:36:51 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1326 TO ITERATE

100.0% PROCESSED 1326 ITERATIONS 65 ANSWERS
SEARCH TIME: 00.00.01

L3 65 SEA SSS FUL L1

=> file caplus
COST IN U.S. DOLLARS SINCE FILE ENTRY TOTAL SESSION
FULL ESTIMATED COST 174.05 174.26

FILE 'CAPLUS' ENTERED AT 10:36:56 ON 15 APR 2007
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FILE COVERS 1907 - 15 Apr 2007 VOL 146 ISS 17
FILE LAST UPDATED: 13 Apr 2007 (20070413/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply.

McIntosh

They are available for your review at:

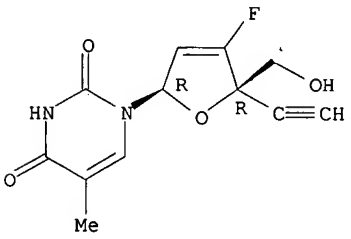
http://www.cas.org/infopolicy.html

=> s l3
L4 27 L3

=> d bib abs hitstr 1-27 l4

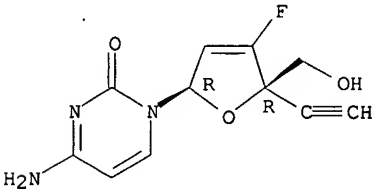
L4 ANSWER 1 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1317375 CAPLUS
DN 146:265782
TI Antiviral activity of nucleoside analogues against SARS-coronavirus (SARS-CoV)
AU Chu, Chung K.; Gadthula, Srinivas; Chen, Xin; Choo, Hyunah; Olgen, Sureyya; Barnard, Dale L.; Sidwell, Robert W.
CS College of Pharmacy, The University of Georgia, Athens, GA, USA
SO Antiviral Chemistry & Chemotherapy (2006), 17(5), 285-289
CODEN: ACCHEH; ISSN: 0956-3202
PB International Medical Press, Ltd.
DT Journal
LA English
AB The recent outbreak of severe acute respiratory syndrome (SARS), which is an acute respiratory illness, is caused by newly discovered SARS coronavirus (SARS-CoV). Herein we describe the antiviral activity of several classes of nucleoside analogs evaluated against SARS-CoV in Vero 76 cells, some of which exhibited moderate activity.
IT 765311-83-9P 765311-84-0P 765311-92-0P
765311-93-1P
RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(antiviral activity of nucleoside analogs against SARS-coronavirus (SARS-CoV))
RN 765311-83-9 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



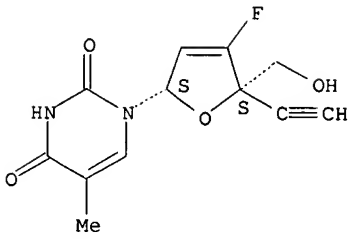
RN 765311-84-0 CAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[(2R,5R)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



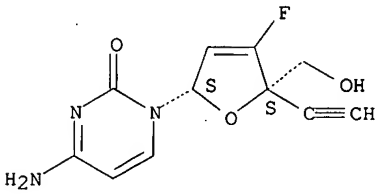
RN 765311-92-0 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5S)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



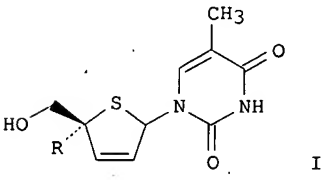
RN 765311-93-1 CAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[(2S,5S)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 24 THERE ARE 24 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:1296214 CAPLUS
DN 146:206566
TI Synthesis and Anti-Human Immunodeficiency Virus Activity of 4'-Branched (±)-4'-Thiostavudines
AU Kumamoto, Hiroki; Nakai, Takahito; Haraguchi, Kazuhiro; Nakamura, Kazuo T.; Tanaka, Hiromichi; Baba, Masanori; Cheng, Yung-Chi
CS School of Pharmaceutical Sciences, Showa University, Shinagawa-ku, Tokyo, 142-8555, Japan
SO Journal of Medicinal Chemistry (2006), 49(26), 7861-7867
CODEN: JMCMAR; ISSN: 0022-2623
PB American Chemical Society
DT Journal
LA English
OS CASREACT 146:206566
GI



I

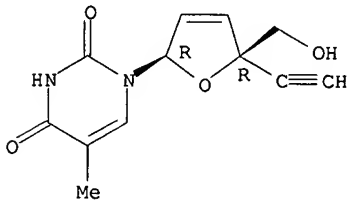
AB 4'-Branched (±)-4'-thiostavudines having a carbon substituent at the 4'-position were synthesized. Me 3-oxo-tetrahydrothiophene-2-carboxylate was used as a starting material to construct the requisite 4-thiofuranoid glycal. Introduction of a thymine base was carried out by an electrophilic addition reaction to 4-thiofuranoid glycal using N-iodosuccinimide (NIS) and bis(trimethylsilyl)thymine. The desired β-anomer obtained as a major product in this reaction underwent ready elimination with activated Zn to give the 4'-carbomethoxy derivative By using 4'-carbomethoxy derivative as a common intermediate, 4'-carbon-substituted 4'-thiostavudines I (R = CH2OH, CO2Me, CONH2, vinyl, CN, and ethynyl) were prepared Among these six compds., I (R = CN, ethynyl) were found to show inhibitory activity against HIV-1 with ED50 values of 7.6 and 0.74 μM, resp. The activity of I (R = ethynyl) was comparable to that of stavudine, but I (R = ethynyl) was not as active as 4'-ethylnylstavudine.

Optical resolution of I (R = ethynyl) was briefly examined

IT 634907-30-5
RL: PAC (Pharmacological activity); BIOL (Biological study)
(stereoselective synthesis and anti-HIV activity of (±)-4'-thiostavudines via diastereoselective electrophilic addition/glycosylation and elimination from Me oxo tetrahydrothiophene-carboxylate and thymine base)

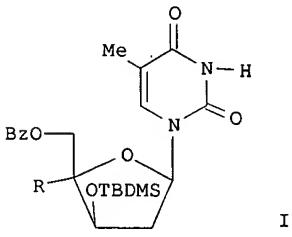
RN 634907-30-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 30 THERE ARE 30 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2006:451111 CAPLUS
DN 145:124802
TI Nucleophilic Substitution at the 4'-Position of Nucleosides: New Access to a Promising Anti-HIV Agent 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine
AU Haraguchi, Kazuhiro; Sumino, Masanori; Tanaka, Hiromichi
CS School of Pharmaceutical Sciences, Showa University, Tokyo, 142-8555, Japan
SO Journal of Organic Chemistry (2006), 71(12), 4433-4438
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 145:124802
GI



I

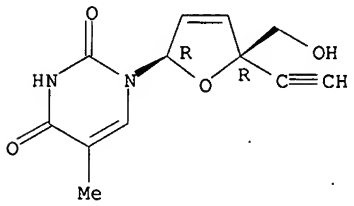
AB For the synthesis of 2',3'-didehydro-3'-deoxy-4'-ethynylthymidine (4'-Ed4T), a recently reported promising anti-HIV agent, a new approach was developed. Since treatment of 1-(2,5-dideoxy-β-L-glycero-pent-4-enofuranosyl)thymine with Pb(OBz)4 allowed the introduction of the 4'-benzoyloxy leaving group, nucleophilic substitution at the 4'-position became feasible for the first time. Thus, reaction between the 4'-benzoyloxy derivative I (R = OBz) and Me3SiC.tplbond.CAl(Et)Cl as a nucleophile led to the isolation of the desired 4'-"down"-ethynyl derivative I (R = C.tplbond.C-SiMe3) stereoselectively in 62% yield. As an application of this approach, other 4'-substituted nucleosides, such as the 4'-allyl I (R = allyl) and 4'-cyano derivs., were synthesized using organosilicon reagents. In these instances, pre-treatment of I (R = OBz) with MeAlCl2 was necessary.

IT 634907-30-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(nucleophilic substitution at 4'-position of nucleosides as new access to promising HIV agent 2',3'-didehydro-3'-deoxy-4'-ethynylthymidine)

RN 634907-30-5 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (CA INDEX NAME)

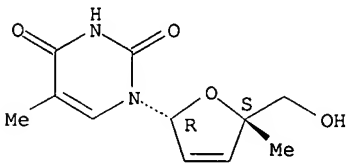
Absolute stereochemistry.



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

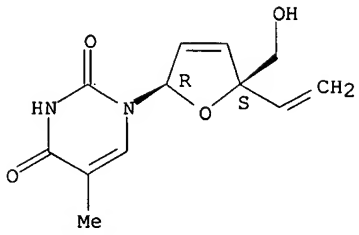
L4 ANSWER 4 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:1151305 CAPLUS
DN 145:293237
TI A new approach to the synthesis of 4'-carbon-substituted nucleosides: Development of a highly active anti-HIV agent 2', 3'-didehydro-3'-deoxy-4'-ethynylthymidine
AU Haraguchi, Kazuhiro; Takeda, Shingo; Sumino, Masanori; Tanaka, Hiromichi; Dutschman, Ginger E.; Cheng, Yung-Chi; Nitanda, Takao; Baba, Masanori
CS School of Pharmaceutical Sciences, Showa University, Tokyo, Japan
SO Nucleosides, Nucleotides & Nucleic Acids (2005), 24(5-7), 343-347
CODEN: NNNAFY; ISSN: 1525-7770
PB Taylor & Francis, Inc.
DT Journal
LA English
OS CASREACT 145:293237
AB Oxidation of 3'-O-TBDMS-4',5'-unsatd. thymidine 3 with dimethyldioxirane (DMDO) allowed the isolation of the epoxide. Upon reacting with organosilicon reagents in the presence of SnCl4, the epoxide underwent stereoselective ring opening to give 4'-α-allyl, 4'-α-(2-bromoallyl), 4'-α-(cyclopenten-3-yl), and 4'-α-cyano derivs. of thymidine. Reactions of the 3'-epimer with organoaluminum reagents gave 4'-α-Me (I), 4'-α-vinyl (II), and 4'-α-ethynyl (III) analogs. Compds. I-III were transformed into corresponding 2',3'-didehydro-3'-deoxy derivs. Evaluation of their ability to inhibit the replication of HIV in cell culture showed that 4'-ethynyl-d4T is more potent and less toxic than the parent compound d4T.
IT 151989-82-1P 634907-29-2P 634907-30-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and anti-HIV activity of 4'-carbon-substituted nucleosides and 2', 3'-didehydro-3'-deoxy-4'-ethynylthymidines)
RN 151989-82-1 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



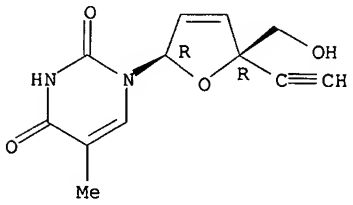
RN 634907-29-2 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-ethenyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 634907-30-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (CA INDEX NAME)

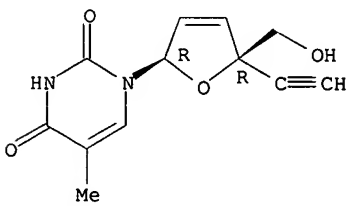
Absolute stereochemistry.



RE.CNT 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 5 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:986427 CAPLUS
DN 143:318373
TI 4'-Ethynylstavudine (4'-Ed4T) has potent anti-HIV-1 activity with reduced toxicity and shows a unique activity profile against drug-resistant mutants
AU Tanaka, Hiromichi; Haraguchi, Kazuhiro; Kumamoto, Hiroki; Baba, Masanori; Cheng, Yung-Chi
CS School of Pharmaceutical Sciences, Showa University, Tokyo, Japan
SO Antiviral Chemistry & Chemotherapy (2005), 16(4), 217-221
CODEN: ACCHEH; ISSN: 0956-3202
PB International Medical Press
DT Journal
LA English
AB A nucleoside analog 4'-ethynylstavudine (4'-Ed4T) was recently synthesized during chemical studies directed towards the development of a new route to 4'-carbon-substituted nucleosides. This compound was more anti-HIV-1 active than the parent compound stavudine (d4T) and much less toxic to various cells and also to mitochondrial DNA synthesis. It became apparent that 4'-Ed4T is a better substrate for human thymidine kinase than d4t, and very much more resistant to catabolism by thymidine phosphorylase. The study of 4'-Ed4T against various drug-resistant HIV-1 mutants has disclosed its unique activity profile.
IT 634907-30-5
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ethynylstavudine has potent anti-HIV-1 activity with reduced toxicity and shows unique activity profile against drug-resistant mutants)
RN 634907-30-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (CA INDEX NAME)

Absolute stereochemistry.

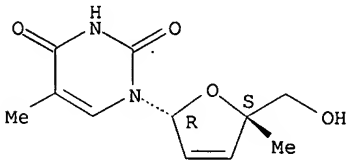


McIntosh

IT 151989-82-1 634907-29-2 717913-88-7
717913-90-1 717913-91-2
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ethynylstavudine has potent anti-HIV-1 activity with reduced toxicity and shows unique activity profile against drug-resistant mutants)

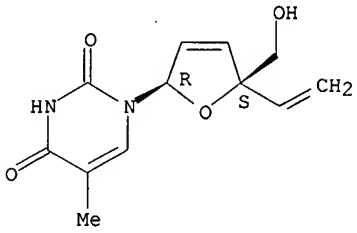
RN 151989-82-1 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



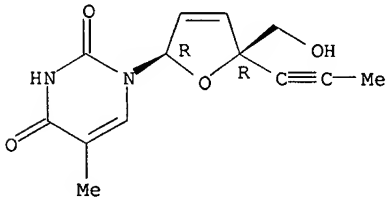
RN 634907-29-2 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-ethenyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



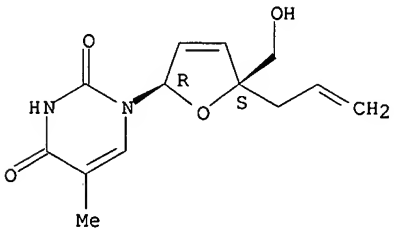
RN 717913-88-7 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-(1-propynyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 717913-90-1 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-5-(2-propenyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

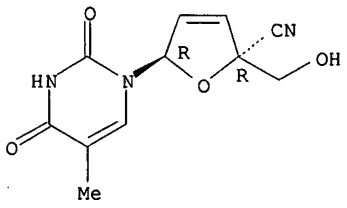
Absolute stereochemistry.



RN 717913-91-2 CAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-

2,5-dihydro-2-(hydroxymethyl)-, (2R,5R)- (9CI) (CA INDEX NAME)

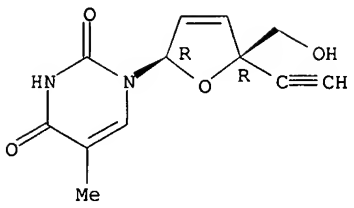
Absolute stereochemistry.



RE.CNT 18 THERE ARE 18 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:714283 CAPLUS
DN 143:339014
TI Anti-human immunodeficiency virus type 1 activity and resistance profile of 2',3'-didehydro-3'-deoxy-4'-ethynylthymidine in vitro
AU Nitanda, Takao; Wang, Xin; Kumamoto, Hiroki; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Cheng, Yung-Chi; Baba, Masanori
CS Division of Antiviral Chemotherapy, Center for Chronic Viral Diseases, Graduate School of Medical and Dental Sciences, Kagoshima University, Kagoshima, 890-8544, Japan
SO Antimicrobial Agents and Chemotherapy (2005), 49(8), 3355-3360
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
AB 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine (4'-Ed4T) has been identified as a novel nucleoside analog with potent and selective anti-human immunodeficiency virus type 1 (HIV-1) activity and weak cytotoxicity in cell cultures. 4'-Ed4T proved to be 5- to 10-fold more active than its structurally related compound, stavudine (d4T). However, the drug resistance profile of 4'-Ed4T was different from those of d4T and other existing HIV-1 nucleoside reverse transcriptase inhibitors (NRTIs). Approx. 6- to 11-fold decreases in susceptibility to 4'-Ed4T were observed for HIV-1 carrying NRTI-associated mutations (D67N, K70R, T215F, and K219Q) or the lamivudine (3TC)-resistant mutation M184V. In contrast, the susceptibility of the virus carrying the K65R mutation or the multidrug-resistant mutation with the Q151M complex (A62V, V75I, F77L, F116Y, and Q151M) was not altered. Furthermore, the activity of 4'-Ed4T appeared to be enhanced in the presence of K103N, a major nonnucleoside reverse transcriptase inhibitor-resistant mutation. Although 4'-Ed4T was 4.5- to 17.5-fold less active against multidrug-resistant clin. isolates than against a reference strain isolated from a treatment-naive patient, it was still inhibitory to these isolates at low concns. Anal. of 4'-Ed4T-resistant HIV-1 obtained through in vitro selection revealed that the virus was also resistant to 3TC and had two amino acid mutations (P119S and T165A) in addition to the M184V mutation. Since 4'-Ed4T has increased anti-HIV-1 activity, decreased cytotoxicity, and a different resistance profile, it should be considered for further development as a new member of NRTIs.
IT 634907-30-5
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(anti-HIV1 activity and resistance profile of didehydrodeoxyethynylthymidine in vitro)
RN 634907-30-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (CA INDEX NAME)

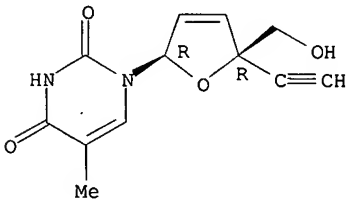
Absolute stereochemistry.



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2005:351348 CAPLUS
DN 144:51794
TI Synthesis of (±)-4'-ethynyl and 4'-cyano carbocyclic analogs of stavudine (d4T)
AU Kumamoto, Hiroki; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Nitanda, Takao; Baba, Masanori; Dutschman, Ginger E.; Cheng, Yung-Chi; Kato, Keisuke
CS Pharmaceutical Sciences, Showa University, Tokyo, Japan
SO Nucleosides, Nucleotides & Nucleic Acids (2005), 24(2), 73-83
CODEN: NNNAFY; ISSN: 1525-7770
PB Taylor & Francis, Inc.
DT Journal
LA English
OS CASREACT 144:51794
AB The synthesis of (±)-4'-ethynyl (I) and 4'-cyano (II) carbocyclic analogs of the anti-HIV agent stavudine (d4T) is reported. The carbocyclic unit was constructed from readily available β-keto ester. The ethynyl or cyano group of I and II were prepared, after the introduction of thymine base, by manipulation of the ester function. Evaluation of the anti-HIV activity of I and II was also carried out, but ultimately did not inhibit the virus.
IT 634907-30-5
RL: PAC (Pharmacological activity); BIOL (Biological study)
(synthesis and anti-HIV activity of (±)-4'-ethynyl and 4'-cyano carbocyclic nucleoside stavudine analogs)
RN 634907-30-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (CA INDEX NAME)

Absolute stereochemistry.



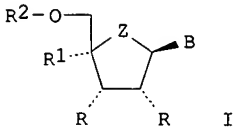
RE.CNT 26 THERE ARE 26 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 8 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:701799 CAPLUS
DN 141:225774
TI Preparation of 2',3'-dideoxy and 2',3'-didehydro nucleoside analogs as prodrugs for treating viral infections, most notably HIV
IN Cheng, Yung-chi; Tanaka, Hiromichi; Baba, Masanori
PA USA
SO U.S. Pat. Appl. Publ., 45 pp.
CODEN: USXXCO
DT Patent
LA English
FAN.CNT 1

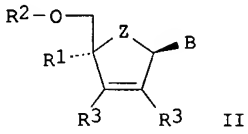
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 2004167096	A1	20040826	US 2004-781305	20040218
	AU 2004260630	A1	20050210	AU 2004-260630	20040218

	CA 2514466	A1	20050210	CA 2004-2514466	20040218
	WO 2005011709	A1	20050210	WO 2004-US4713	20040218
	W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	BR 2004007374	A	20060110	BR 2004-7374	20040218
	EP 1653976	A1	20060510	EP 2004-775776	20040218
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
	CN 1777432	A	20060524	CN 2004-80010529	20040218
	JP 2006528972	T	20061228	JP 2006-532288	20040218
	IN 2005KN01553	A	20061027	IN 2005-KN1553	20050805
PRAI	US 2003-448554P	P	20030219		
	WO 2004-US4713	W	20040218		
OS	CASREACT 141:225774; MARPAT 141:225774				

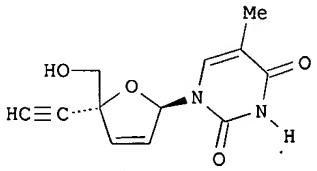
GI



I



II



III

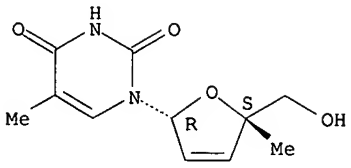
AB Nucleosides I, wherein B is nucleobase; Z is O or CH2; R is H, OH, halo, alkyl substituents; R1 can be H, Me, alkenyl, alkynyl; R2 is H, acyl, alkyl, ether, phosphoethers; and 2',3'-didehydro nucleosides II where Z is O; and R3 can alkyl, alkenyl, alkynyl, halo, hydroxy, were prepared as prodrugs and antiviral agents. Thus, the synthesized 2',3'-dideoxy and didehydro nucleoside analogs were tested as potential antiviral, anti-HIV and anti-infective prodrugs as independent agents, or in combination with other agents. Specifically, didehydro nucleoside III was prepared and tested in vitro as potent anti-HIV-1 agent (EC50 = 0.25 ± 0.14) and as well less toxic (ID50 >256) as D4T, therefor has the potential as a new anti-HIV drug.

IT 151989-82-1P 634907-29-2P 634907-30-5P
717913-88-7P 717913-89-8P 717913-90-1P
717913-91-2P
RL: IMF (Industrial manufacture); PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(synthesis of 2',3'-dideoxy and didehydro nucleoside analog and their evaluation as antiviral, anti-HIV and anti-infective prodrugs)

RN 151989-82-1 CAPLUS

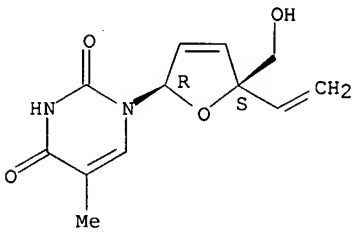
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



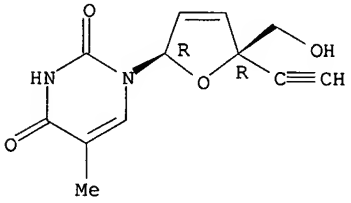
RN 634907-29-2 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-ethenyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



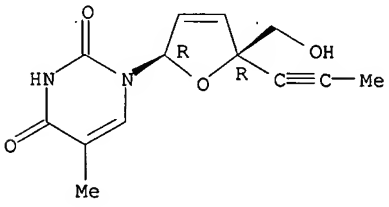
RN 634907-30-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (CA INDEX NAME)

Absolute stereochemistry.



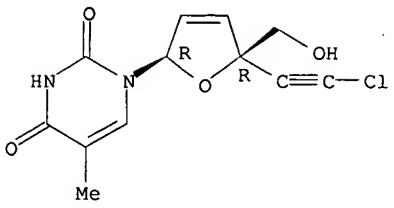
RN 717913-88-7 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-(1-propynyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



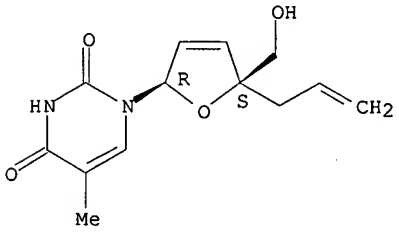
RN 717913-89-8 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-(chloroethynyl)-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



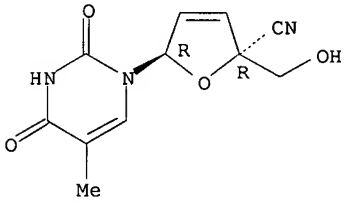
RN 717913-90-1 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-5-(2-propenyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



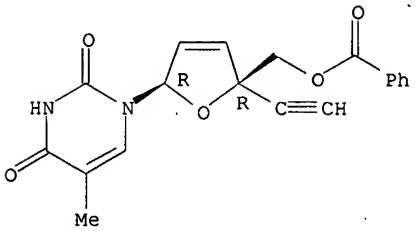
RN 717913-91-2 CAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 744217-17-2P
RL: IMF (Industrial manufacture); RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis of 2',3'-dideoxy and didehydro nucleoside analog and their evaluation as antiviral, anti-HIV and anti-infective prodrugs)
RN 744217-17-2 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-[(benzoyloxy)methyl]-5-ethynyl-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

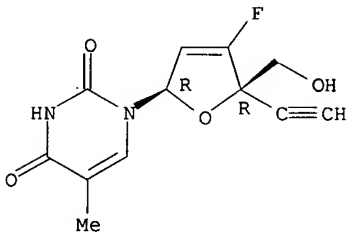
Absolute stereochemistry.



L4 ANSWER 9 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:641088 CAPLUS
DN 141:296237
TI Synthesis of 3'-Fluoro-2',3'-dideoxy-2',3'-didehydro-4'-ethynyl-D- and -L-furanosyl Nucleosides

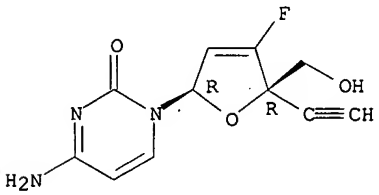
AU Chen, Xin; Zhou, Wen; Schinazi, Raymond F.; Chu, Chung K.
CS College of Pharmacy, University of Georgia, Athens, GA, 30602, USA
SO Journal of Organic Chemistry (2004), 69(18), 6034-6041
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 141:296237
AB An efficient procedure has been developed for the synthesis of 3'-fluoro-2',3'-dideoxy-2',3'-didehydro-4'-ethynyl D- and L-furanosyl nucleosides starting from 2,3-O-isopropylidene-D-glyceraldehyde. The key intermediate 1-O-benzoyl-3E-fluoro-3,4-unsatd.-5,6-di(tert-butyldimethylsilyloxy)-2-hexanone was obtained in nine steps with the overall yield of 22%. This α,β-unsatd. ketone was then treated with ethynylmagnesium bromide in a typical Grignard reaction procedure to afford two intermediates, which after deprotection, oxidation, and acetylation gave the corresponding 4-ethynyl-substituted D- and L-sugar moieties. A series of D- and L-pyrimidine and purine nucleosides were prepared by the coupling of the sugar moieties with various silyl-protected bases. The anomeric mixts. were obtained after condensation. After separation, the β-isomers were further deprotected to yield the target nucleosides. All the newly synthesized 4'-substituted nucleosides were tested for their activities against HIV, among which the D-adenine derivative showed moderate anti-HIV activity (EC50 = 25.1 μM) without significant cytotoxicity.
IT 765311-83-9P 765311-84-0P 765311-92-0P
765311-93-1P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and antiviral activity of 3'-fluorodideoxydidehydro-4'-ethynyl-D- and L-furanosyl nucleosides)
RN 765311-83-9 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



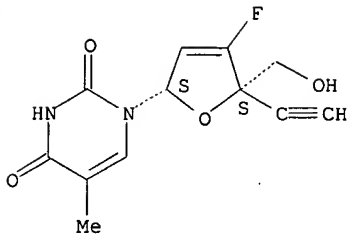
RN 765311-84-0 CAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[(2R,5R)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



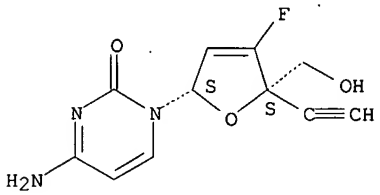
RN 765311-92-0 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5S)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



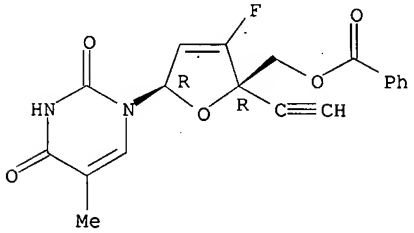
RN 765311-93-1 CAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[(2S,5S)-5-ethynyl-4-fluoro-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



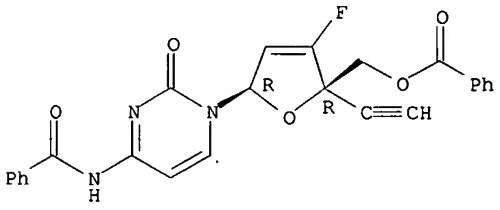
IT 765311-77-1P 765311-78-2P 765311-86-2P
765311-87-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and antiviral activity of 3'-fluorodideoxydidehydro-4'-ethynyl-D- and L-furanosyl nucleosides)
RN 765311-77-1 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-ethynyl-3'-fluoro-, 5'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



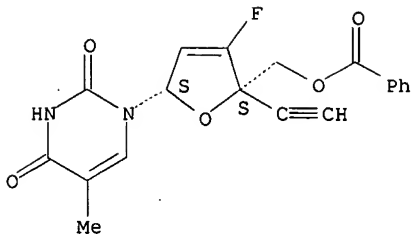
RN 765311-78-2 CAPLUS
CN Cytidine, N-benzoyl-2',3'-didehydro-2',3'-dideoxy-4'-C-ethynyl-3'-fluoro-, 5'-benzoate (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



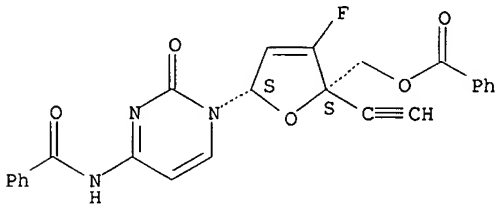
RN 765311-86-2 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5S)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



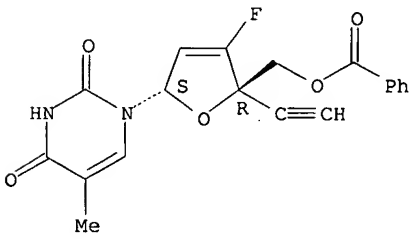
RN 765311-87-3 CAPLUS
CN Benzamide, N-[1-[(2S,5S)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



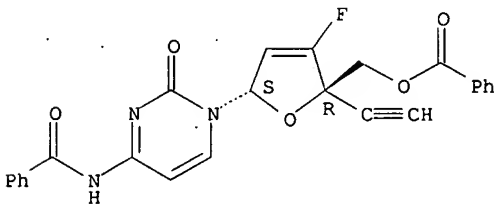
IT 765311-79-3P 765311-80-6P 765311-88-4P
765311-89-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and antiviral activity of 3'-fluorodideoxydidehydro-4'-ethynyl-D- and L-furanosyl nucleosides)
RN 765311-79-3 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5R)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



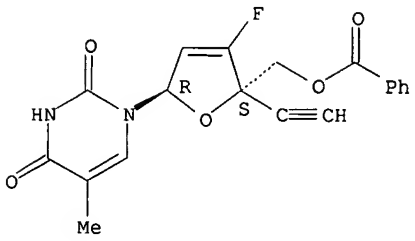
RN 765311-80-6 CAPLUS
CN Benzamide, N-[1-[(2S,5R)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



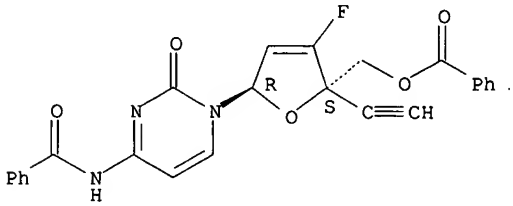
RN 765311-88-4 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 765311-89-5 CAPLUS
CN Benzamide, N-[1-[(2R,5S)-5-[(benzoyloxy)methyl]-5-ethynyl-4-fluoro-2,5-dihydro-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]- (9CI) (CA INDEX NAME)

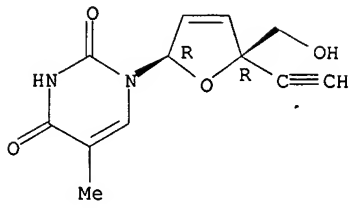
Absolute stereochemistry. Rotation (-).



RE.CNT 44 THERE ARE 44 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

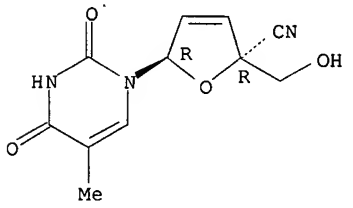
L4 ANSWER 10 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:393067 CAPLUS
DN 141:350346
TI Synthesis and Anti-HIV Activity of 4'-Cyano-2',3'-didehydro-3'-deoxythymidine
AU Haraguchi, Kazuhiro; Itoh, Yoshiharu; Takeda, Shingo; Honma, Yosuke; Tanaka, Hiromichi; Nitanda, Takao; Baba, Masanori; Dutschman, Ginger E.; Cheng, Yung-Chi
CS ~~School of~~ Pharmaceutical Sciences, Showa University, Shinagawa-ku, Tokyo, Japan
SO Nucleosides, Nucleotides & Nucleic Acids (2004), 23(4), 647-654
CODEN: NNNAFY; ISSN: 1525-7770
PB Marcel Dekker, Inc.
DT Journal
LA English
OS CASREACT 141:350346
AB A new anti-HIV agent 4'-cyano-2',3'-didehydro-3'-deoxythymidine was synthesized by allylic substitution of the 3',4'-unsatd. nucleoside, having a leaving group at the 2'-position, with cyanotrimethylsilane in the presence of SnCl4. Evaluation of the anti-HIV activity showed that this compound is much less potent than the recently reported 2',3'-didehydro-3'-deoxy-4'-(ethynyl)thymidine.
IT 634907-30-5
RL: PAC (Pharmacological activity); BIOL (Biological study)
(synthesis and anti-HIV activity of cyanodidehydrodeoxythymidine)
RN 634907-30-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (CA INDEX NAME)

Absolute stereochemistry.



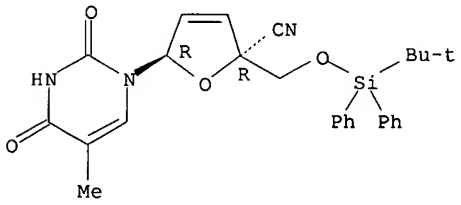
IT 717913-91-2P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and anti-HIV activity of cyanodidehydrodeoxythymidine)
RN 717913-91-2 CAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



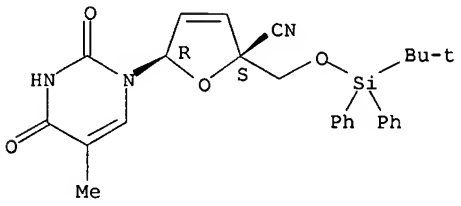
IT 774226-11-8P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and anti-HIV activity of cyanodidehydrodeoxythymidine)
RN 774226-11-8 CAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2R,5R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 774226-12-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(synthesis and anti-HIV activity of cyanodidehydrodeoxythymidine)
RN 774226-12-9 CAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2S,5R)- (9CI) (CA INDEX NAME)

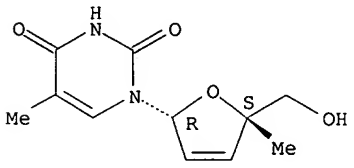
Absolute stereochemistry.



RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

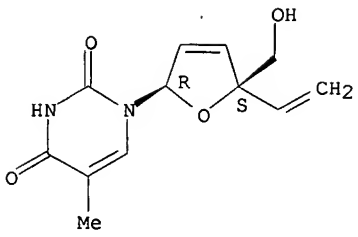
L4 ANSWER 11 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2004:374658 CAPLUS
DN 141:99075
TI Novel 4'-substituted stavudine analog with improved anti-human immunodeficiency virus activity and decreased cytotoxicity
AU Dutschman, Ginger E.; Grill, Susan P.; Gullen, Elizabeth A.; Haraguchi, Kazuhiro; Takeda, Shingo; Tanaka, Hiromichi; Baba, Masanori; Cheng, Yung-Chi
CS Department of Pharmacology, School of Medicine, Yale University, New Haven, CT, 06520, USA
SO Antimicrobial Agents and Chemotherapy (2004), 48(5), 1640-1646
CODEN: AMACCQ; ISSN: 0066-4804
PB American Society for Microbiology
DT Journal
LA English
AB The antiviral drug 2',3'-didehydro-3'-deoxythymidine (D4T; also know as stavudine and Zerit), which is used against human immunodeficiency virus (HIV), causes delayed toxicity (peripheral neuropathy) in long-term use. After examining a series of 2',3'-didehydro-3'-deoxy-4'-substituted thymidine (4'-substituted D4T) analogs, 4'-ethynyl D4T was found to have a fivefold better antiviral effect and to cause less cellular and mitochondrial toxicity than D4T. The antiviral activity of this compound can be reversed by dThd but not by dCyd. The compound acted synergistically with β-L-2',3'-deoxy-3'-thiacytidine (also known as lamivudine) and β-L-2',3'-dideoxy-2',3'-didehydro-5-fluorocytidine (also known as elvucitabine) and additively with 2',3'-dideoxyinosine (also known as didanosine and Videx) and 3'-azido-3'-deoxythymidine (also known as Retovir and zidovudine) against HIV. 4'-Ethynyl D4T is phosphorylated by purified human thymidine kinase 1 (TK-1) from CEM cells with a faster relative Vmax and a lower Km value than D4T. The efficiency of TK-1 in the phosphorylation of 4'-ethynyl D4T is fourfold better than that of D4T. While D4T is broken down by the catabolic enzyme thymidine phosphorylase, the level of breakdown of 4'-ethynyl D4T was below detection. Since 4'-ethynyl D4T has increased anti-HIV activity and decreased toxicity and interacts favorably with other currently used anti-HIV drugs, it should be considered for further development as an anti-HIV drug.
IT 151989-82-1, 2',3'-Didehydro-3'-deoxy-4'-methylthymidine
634907-29-2, 2',3'-Didehydro-3'-deoxy-4'-ethenylthymidine
634907-30-5 717913-88-7, 2',3'-Didehydro-3'-deoxy-4'-methylethynylthymidine 717913-89-8, 2',3'-Didehydro-3'-deoxy-4'-chloroethynylthymidine 717913-90-1, 4'-Allyl-2',3'-Didehydro-3'-deoxythymidine 717913-91-2, 4'-Cyano-2',3'-Didehydro-3'-deoxythymidine
RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(4'-substituted stavudine analog with improved anti-HIV activity and decreased cytotoxicity)
RN 151989-82-1 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



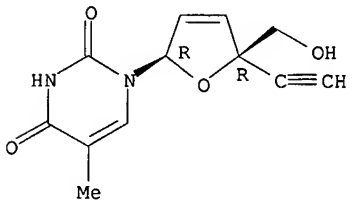
RN 634907-29-2 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-ethenyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



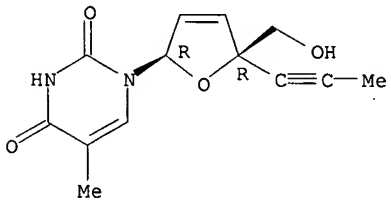
RN 634907-30-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (CA INDEX NAME)

Absolute stereochemistry.



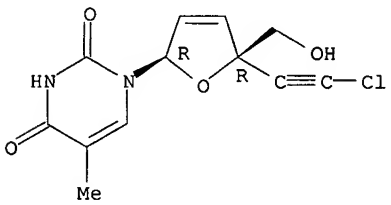
RN 717913-88-7 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-(1-propynyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



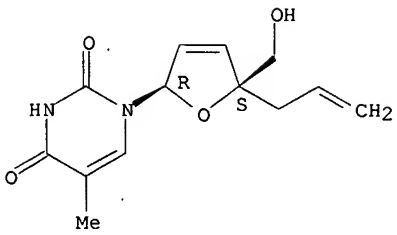
RN 717913-89-8 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-(chloroethynyl)-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



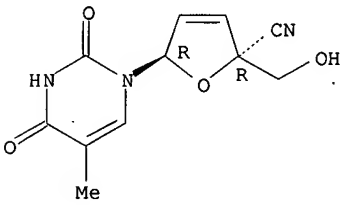
RN 717913-90-1 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-5-(2-propenyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 717913-91-2 CAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2R,5R)- (9CI) (CA INDEX NAME)

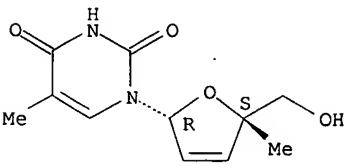
Absolute stereochemistry.



RE.CNT 42 THERE ARE 42 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

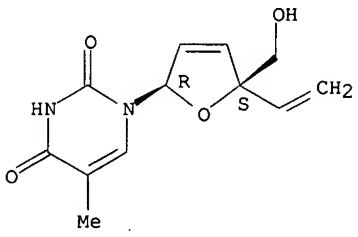
L4 ANSWER 12 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:795099 CAPLUS
DN 140:42413
TI Synthesis of a highly active new anti-HIV agent 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine
AU Haraguchi, Kazuhiro; Takeda, Shingo; Tanaka, Hiromichi; Nitanda, Takao; Baba, Masanori; Dutschman, G. E.; Cheng, Yung-Chi
CS School of Pharmaceutical Sciences, Showa University, 1-5-8 Hatanodai, Shinagawa-ku, Tokyo, 142-8555, Japan
SO Bioorganic & Medicinal Chemistry Letters (2003), 13(21), 3775-3777
CODEN: BMCLE8; ISSN: 0960-894X
PB Elsevier Science B.V.
DT Journal
LA English
OS CASREACT 140:42413
AB Compds. having Me, vinyl, and ethynyl groups at the 4'-position of stavudine (d4T: 2',3'-didehydro-3'-deoxythymidine) were synthesized. The compds. were assayed for their ability to inhibit the replication of HIV in cell culture. The 4'-ethynyl analog was found to be ten times more potent and less toxic than the parent compound stavudine.
IT 151989-82-1P 634907-29-2P 634907-30-5P
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and anti-HIV structure activity anal. of 2',3'-Didehydro-3'-deoxy-4'-ethynylthymidine analogs)
RN 151989-82-1 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



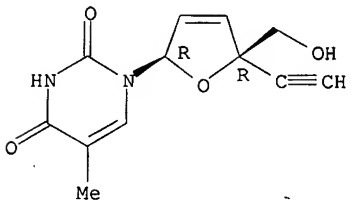
RN 634907-29-2 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-5-ethenyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 634907-30-5 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-ethynyl-2,5-dihydro-5-(hydroxymethyl)-2-furanyl]-5-methyl- (CA INDEX NAME)

Absolute stereochemistry.

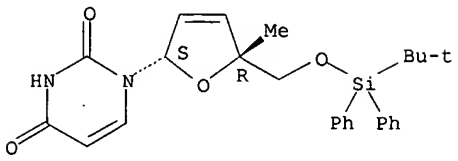


RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 13 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2003:788367 CAPLUS
DN 140:16909
TI Asymmetric synthesis of oxygen heterocycles via Pd-catalyzed dynamic kinetic asymmetric transformations: Application to nucleosides
AU Trost, Barry M.; Brown, Brian S.; McEachern, Ernest J.; Kuhn, Oliver
CS Department of Chemistry, Stanford University, Stanford, CA, 94305-5080, USA
SO Chemistry--A European Journal (2003), 9(18), 4442-4451
CODEN: CEUJED; ISSN: 0947-6539
PB Wiley-VCH Verlag GmbH & Co. KGaA
DT Journal
LA English
OS CASREACT 140:16909
AB Racemic butadiene and isoprene monoepoxide react with unsatd. alcs. in the presence of a chiral palladium catalyst and a boron co-catalyst to give 3-alkoxy-4-hydroxy-1-butene and 3-alkoxy-4-hydroxy-3-methyl-1-butene, resp., with excellent regio and enantioselectivity in a dynamic kinetic asym. transformation whereby both enantiomers of the starting epoxides provide the same enantiomeric product. In the case of 2-phenyl-butadiene monoepoxide, easily available from phenacyl chloride and vinylmagnesium bromide, the reaction proceeds by kinetic resolution A model to rationalize the result is presented. The bis-olefin products are ideal substrates for the Ru catalyzed ring closing metathesis. In this way, five-, six-, and seven-membered oxygen heterocycles are readily available enantiomerically pure. The value of this very simple two step process is demonstrated by the use of the five-membered ring heterocycles to form unnatural and unusual nucleosides that cannot be easily accessed by other means. The sequence involves a Ru catalyzed isomerization of the initial 2,5-dihydrofuran to a 2,3-dihydrofuran followed by a selenium promoted addition of a pyrimidine or purine base. One advantage of this strategy is the easy access to either enantiomeric series, both of which have important biol. applications.
IT 628301-86-0P 630109-32-9P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(asym. synthesis of oxygen heterocycles and unsatd. dideoxynucleoside analogs which is amendable to the preparation of either enantiomeric series)
RN 628301-86-0 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5R)-5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-methyl-2-furanyl]-

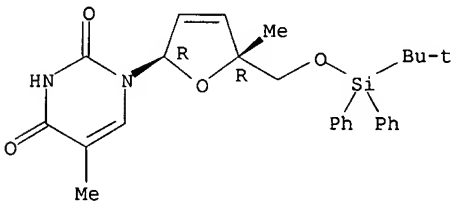
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



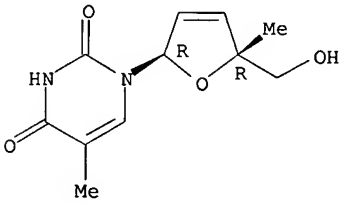
RN 630109-32-9 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-methyl-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



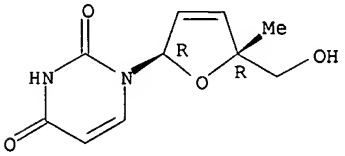
IT 628301-88-2P 628301-89-3P 630109-39-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(asym. synthesis of oxygen heterocycles and unsatd. dideoxynucleoside analogs which is amendable to the preparation of either enantiomeric series)
RN 628301-88-2 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-methyl-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



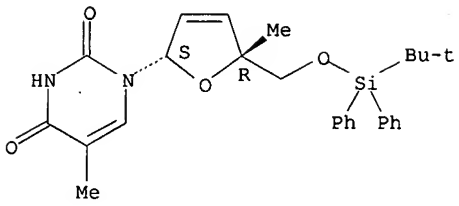
RN 628301-89-3 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5R)-2,5-dihydro-5-(hydroxymethyl)-5-methyl-2-furanyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).



RN 630109-39-6 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2S,5R)-5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-methyl-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

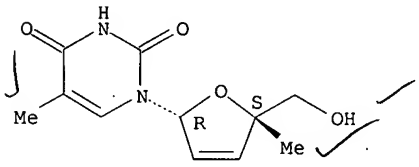
Absolute stereochemistry.



RE.CNT 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 14 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:954815 CAPLUS
DN 138:321485
TI Reaction of 4',5'-epoxynucleosides with carbon nucleophiles: Stereoselective synthesis of 4'-C-carbon-substituted nucleosides
AU Haraguchi, Kazuhiro; Takeda, Shingo; Tanaka, Hiromichi
CS School of Pharmaceutical Sciences, Showa University, Tokyo, 142-8555, Japan
SO Nucleic Acids Research Supplement (2002), 2(Twenty-ninth Symposium on Nucleic Acids Chemistry), 133-134
CODEN: NARSCE
PB Oxford University Press
DT Journal
LA English
OS CASREACT 138:321485
AB 4',5'-Epoxythymidine (I) was obtained as a single diastereoisomer by oxidation of 3'-O-(t-Bu dimethylsilyl)-4',5'-dehydrothymidine with dimethyldioxirane. When the epoxide I was treated with allyltrimethylsilane in the presence of SnCl4, regio- (at the C4') and stereoselective (from the α-face) cleavage of the oxirane ring proceeded to afford a 4'-C-α-allylated derivative as a sole product. In the reaction of I with trimethylaluminum, 4'-C-β-Me derivative was obtained as a major product.
IT 151989-82-1P
RL: PNU (Preparation, unclassified); PREP (Preparation)
(stereoselective synthesis of 4'-C-carbon-substituted nucleosides via epoxide ring opening of 4',5'-epoxynucleosides with carbon nucleophiles)
RN 151989-82-1 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 15 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 2002:556506 CAPLUS
DN 137:257266
TI In Silico Studies toward the Discovery of New Anti-HIV Nucleoside Compounds with the Use of TOPS-MODE and 2D/3D Connectivity Indices. 1. Pyrimidyl Derivatives
AU Estrada, Ernesto; Vilar, Santiago; Uriarte, Eugenio; Gutierrez, Yaquelin
CS Faculty of Pharmacy, Department of Organic Chemistry, University of Santiago de Compostela, Santiago de Compostela, 15706, Spain
SO Journal of Chemical Information and Computer Sciences (2002), 42(5), 1194-1203
CODEN: JCISD8; ISSN: 0095-2338
PB American Chemical Society
DT Journal
LA English
AB Computational approaches are developed to design or rationally select,

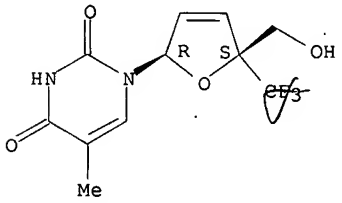
from structural databases, pyrimidyl nucleosides with anti-HIV activity. A data set of 141 nucleoside derivs. was selected from literature, and a discriminant function was derived with the use of TOPS-MODE descriptors. The model is able to classify correctly 83% of the compds. in a training set and 88.5% in a cross-validation set. The use of an external prediction set selected from the most recent literature proved that the model has good predictive ability, with a good classification of 85% of the compds. in this set. This model permitted the structural interpretation of the anti-HIV activity of these nucleoside analogs. This interpretation is formulated as several rules concerning the influence of several structural features on the activity/inactivity of such compds. A QSAR model for the most active compds. was developed with the combined use of 2D and 3D connectivity indexes. This model explains 88% of the variance in the activity of these compds. in MT4 assay. The combination of both models will permit the selection of pyrimidyl nucleoside leads and their optimization to improve the potency of the selected ones.

IT 219649-58-8
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(in silico studies toward discovery of anti-HIV nucleoside compds. with use of TOPS-MODE and 2D/3D connectivity indexes)

RN 219649-58-8 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-5-(trifluoromethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



RE.CNT 82 THERE ARE 82 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 16 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1998:784373 CAPLUS

DN 130:110528

TI Synthesis of 4'-trifluoromethyl nucleoside analogs

AU Kozak, Janusz; Johnson, Carl R.

CS Department of Chemistry, Wayne State University, Detroit, MI, 48202-3489, USA

SO Nucleosides & Nucleotides (1998), 17(12), 2221-2239
CODEN: NUNUD5; ISSN: 0732-8311

PB Marcel Dekker, Inc.

DT Journal

LA English

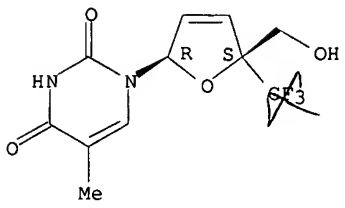
AB A strategy based on the use of (trifluoromethyl)trimethylsilane for introduction of the trifluoromethyl group at the C-4 of ribose has been developed and utilized in the synthesis of various novel 4'-trifluoromethylated nucleoside analogs. Screening of these analogs against HIV did not reveal significant biol. activity.

IT 219649-58-8P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation of trifluoromethyl nucleoside analogs)

RN 219649-58-8 CAPLUS

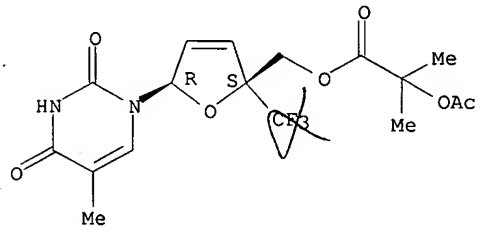
CN 2,4(1H,3H)-Pyrimidinedione, 1-[(2R,5S)-2,5-dihydro-5-(hydroxymethyl)-5-(trifluoromethyl)-2-furanyl]-5-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



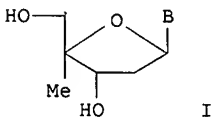
IT 219649-57-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of trifluoromethyl nucleoside analogs)
RN 219649-57-7 CAPLUS
CN Propanoic acid, 2-(acetyloxy)-2-methyl-, [(2S,5R)-5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(trifluoromethyl)-2-furanyl]methyl ester (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RE.CNT 35 THERE ARE 35 CITED REFERENCES AVAILABLE FOR THIS RECORD
ALL CITATIONS AVAILABLE IN THE RE FORMAT

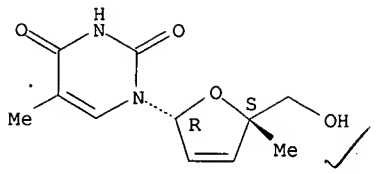
L4 ANSWER 17 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:109073 CAPLUS
DN 124:290140
TI Synthesis and biological evaluation of 4'-C-methyl nucleosides
AU Waga, Toshiaki; Ohrui, Hiroshi; Meguro, Hiroshi
CS Central Res. Lab., Asahi Breweries Ltd., Tokyo, 143, Japan
SO Nucleosides & Nucleotides (1996), 15(1-3), 287-304
CODEN: NUNUD5; ISSN: 0732-8311
PB Dekker
DT Journal
LA English
GI



I

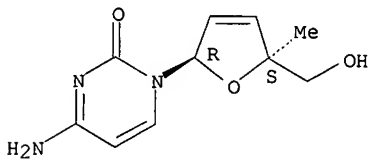
AB A series of 2'-deoxy, 2',3'-unsatd. and 2',3'-dideoxynucleoside analogs, e.g. I (B = adenine, cytosine, thymine), which have an addnl. Me group at the 4'-position, have been synthesized. When evaluated for their inhibitory activity against HIV in MT-4 cell, 2'-deoxy-4'-C-Me nucleosides exhibited potent activity.
IT 151989-82-1P 175545-34-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(synthesis and antiviral activity of C-methyldeoxyribonucleosides)
RN 151989-82-1 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



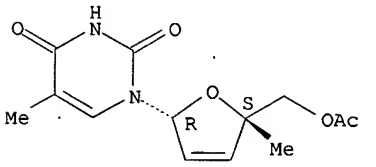
RN 175545-34-3 CAPLUS
CN 2(1H)-Pyrimidinone, 4-amino-1-[2,5-dihydro-5-(hydroxymethyl)-5-methyl-2-furanyl]-, (2R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (+).



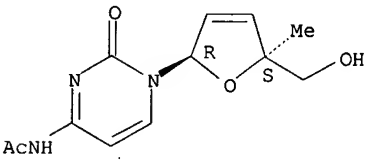
IT 160766-57-4P 175545-35-4P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(synthesis and antiviral activity of C-methyldeoxyribonucleosides)
RN 160766-57-4 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[(acetyloxy)methyl]-2,5-dihydro-5-methyl-2-furanyl]-5-methyl-, (2R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 175545-35-4 CAPLUS
CN Acetamide, N-[1-[2,5-dihydro-5-(hydroxymethyl)-5-methyl-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]-, (2R-cis)- (9CI) (CA INDEX NAME)

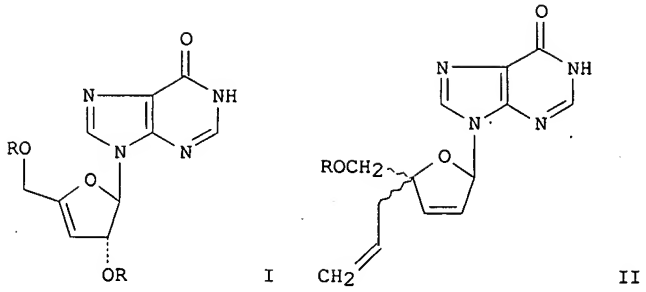
Absolute stereochemistry. Rotation (+).



L4 ANSWER 18 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1996:53061 CAPLUS
DN 124:202920
TI Allylic Substitution of 3',4'-Unsaturated Nucleosides: Organosilicon-Based Stereoselective Access to 4'-C-Branched 2',3'-Didehydro-2',3'-dideoxyribonucleosides
AU Haraguchi, Kazuhiro; Tanaka, Hiromichi; Itoh, Yoshiharu; Yamaguchi, Kentaro; Miyasaka, Tadashi
CS School of Pharmaceutical Sciences, Showa University, Tokyo, 142, Japan
SO Journal of Organic Chemistry (1996), 61(3), 851-8
CODEN: JOCEAH; ISSN: 0022-3263
PB American Chemical Society
DT Journal
LA English
OS CASREACT 124:202920
GI

Cited

McIntosh



I II

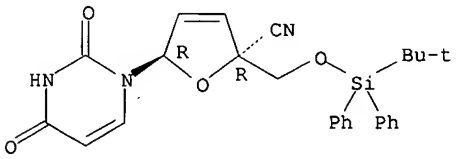
AB Reactions of organosilicon reagents (such as allyltrimethylsilane, silyl enol ethers, cyanotrimethylsilane) with 3',4'-unsatd. nucleosides, e.g. I (R = Ac, Bz, TBDPS), were investigated in the presence of a Lewis acid in CH2Cl2. In the cases of uracil and N4-acetylcytosine derivs., SnCl4 appeared to be suitable, whereas the use of EtAlCl2 was necessary for the hypoxanthine derivs. The main pathway of these reactions was found to be α-face-selective SN2' allylic substitution, irresp. of the configuration of 2'-O-acyl leaving group. As a result, a new stereoselective operation for C-C bonds formation leading to 4'-carbon-substituted 2',3'-didehydro-2',3'-dideoxyribonucleosides, e.g. II (R = Ac, Bz, TBDPS), has been disclosed for the first time. Stereochem. of these 4'-C-branched products can be assigned on the basis of 1H NMR spectroscopy in terms of the anisotropic shift of H-5 of the pyrimidine base (or H-8 of the hypoxanthine), which is caused by the 5'-O-(tert-butyldiphenylsilyl) protecting group.

IT 142468-72-2P 142560-96-1P 174275-93-5P
174391-02-7P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(stereoselective allylic substitution of unsatd. nucleosides in preparation of branched didehydrodideoxyribonucleosides)

RN 142468-72-2 CAPLUS

CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

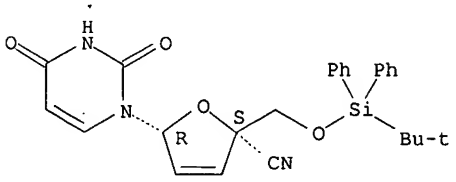
Absolute stereochemistry.



RN 142560-96-1 CAPLUS

CN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

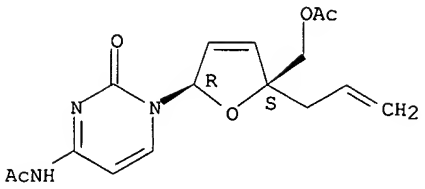


RN 174275-93-5 CAPLUS

CN Cytidine, N-acetyl-2',3'-didehydro-2',3'-dideoxy-4'-C-2-propenyl-, 5'-acetate (9CI) (CA INDEX NAME)

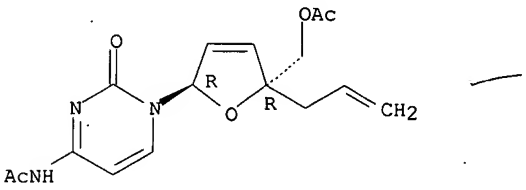
Absolute stereochemistry.

McIntosh



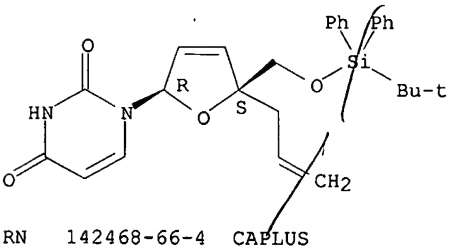
RN 174391-02-7 CAPLUS
CN Acetamide, N-[1-[5-[(acetyloxy)methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



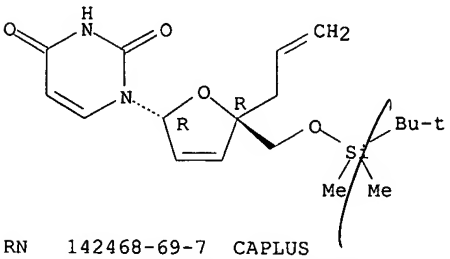
IT 142468-65-3P 142468-66-4P 142468-69-7P
142468-70-0P 142560-91-6P 142560-93-8P
142560-94-9P 142562-05-8P 145668-71-9P
153380-74-6P 174275-94-6P 174275-96-8P
174391-03-8P 174391-04-9P
RL: SPN (Synthetic preparation); PREP (Preparation)
(stereoselective allylic substitution of unsatd. nucleosides in preparation of branched didehydrodideoxyribonucleosides)
RN 142468-65-3 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



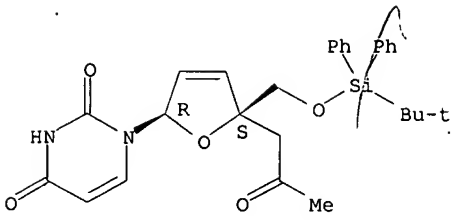
RN 142468-66-4 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



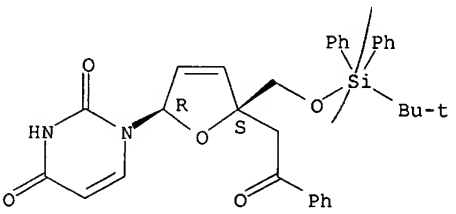
RN 142468-69-7 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



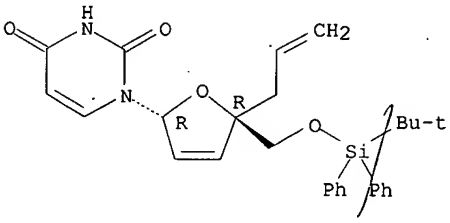
RN 142468-70-0 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



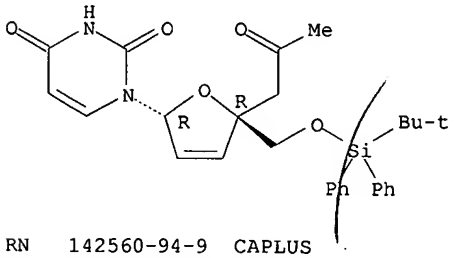
RN 142560-91-6 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



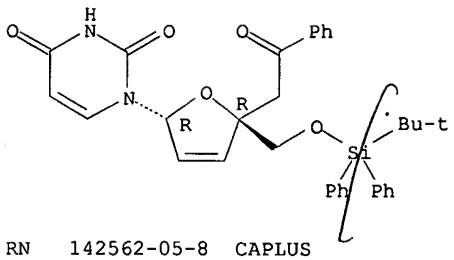
RN 142560-93-8 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxopropyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



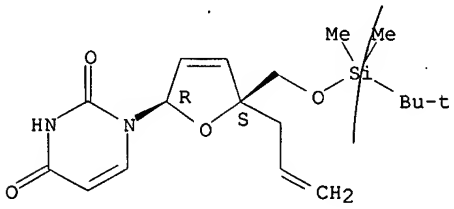
RN 142560-94-9 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxo-2-phenylethyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



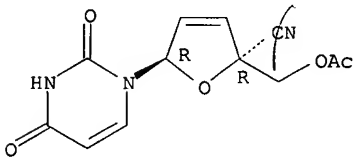
RN 142562-05-8 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)dimethylsilyl]-4'-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



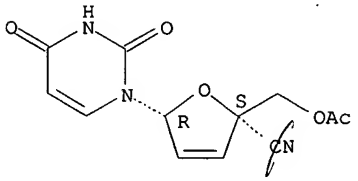
RN 145668-71-9 CAPLUS
CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-, 5'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



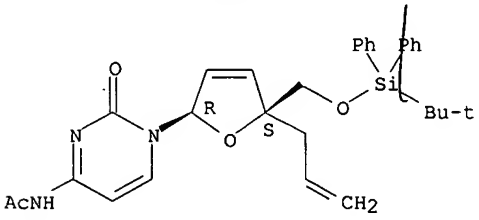
RN 153380-74-6 CAPLUS
CN 2-Furancarbonitrile, 2-[(acetyloxy)methyl]-5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 174275-94-6 CAPLUS
CN Cytidine, N-acetyl-2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-C-2-propenyl- (9CI) (CA INDEX NAME)

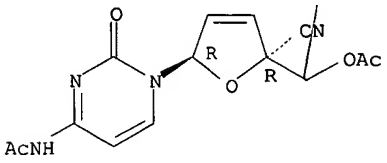
Absolute stereochemistry.



RN 174275-96-8 CAPLUS
CN Cytidine, N-acetyl-4'-C-cyano-2',3'-didehydro-2',3'-dideoxy-, 5'-acetate

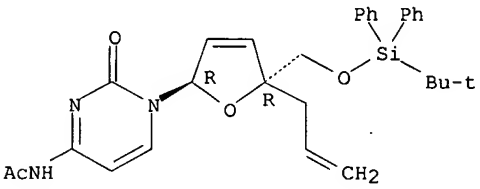
(9CI) (CA INDEX NAME)

Absolute stereochemistry.



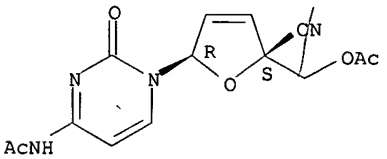
RN 174391-03-8 CAPLUS
CN Acetamide, N-[1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 174391-04-9 CAPLUS
CN Acetamide, N-[1-[5-[(acetyloxy)methyl]-5-cyano-2,5-dihydro-2-furanyl]-1,2-dihydro-2-oxo-4-pyrimidinyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

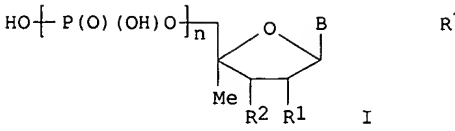
Absolute stereochemistry.



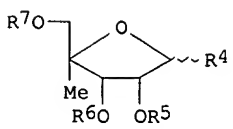
L4 ANSWER 19 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1995:23148 CAPLUS
DN 122:133690
TI Preparation of 4'-methylnucleosides as virucides or neoplasm inhibitors
IN Waga, Toshiaki; Nishizaki, Tomoko; Oorui, Hiroshi; Meguro, Hiromu
PA Asahi Breweries Ltd, Japan
SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06080688	A	19940322	JP 1992-258847	19920903
PRAI	JP 1992-258847		19920903		

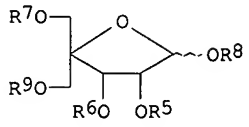
OS MARPAT 122:133690
GI



I



II



III

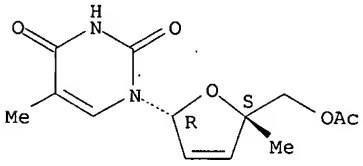
AB The title compds. I (R1, R2 = H, OH; R1R2 may form ring; B = purine or pyrimidine bases; n = 0, 1, 3) or their esters, ethers, or salts are prepared by (deprotection and) deoxidn. of sugars III (R5-8 = protective group; R9 = H, protective group) followed by reaction of resulting sugars II (R4 = acyloxy, halo; R5-7 = same as III) with (silylated) (acylated) nucleic acid bases and optional deprotection and derivatization. Pharmaceutical compns. containing I and ≥1 inert supports and/or diluents are also claimed (no data). N6-benzoyladenine was silylated by Me3SiCl in Me3SiNHSiMe3 under reflux overnight, mixed with 1,2-diacetyl-3,5-dibenzyl-4-methyl-β-D-ribofuranose (preparation given), 1,2-dichloroehtane, and SnCl4, and heated at 60° for 4 h to give 71% N6-benzoyl-2'-acetyl-3',5'-dibenzyl-4'-methyladenosine, deprotection of which gave 4'-methyladenosine.

IT 160766-57-4P, 5'-Acetyl-2',3'-didehydro-3'-deoxy-4'-methylthymidine
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and hydrolysis of)

RN 160766-57-4 CAPLUS

CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[(acetyloxy)methyl]-2,5-dihydro-5-methyl-2-furanyl]-5-methyl-, (2R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

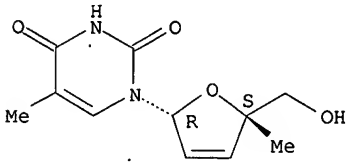


IT 151989-82-1P, 2',3'-Didehydro-3'-deoxy-4'-methylthymidine
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as virucide and neoplasm inhibitor)

RN 151989-82-1 CAPLUS

CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



claim 5

L4 ANSWER 20 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN

AN 1994:164819 CAPLUS

DN 120:164819

TI 4'-Carbon-substituted pyrimidine nucleosides as pharmaceuticals and their preparation

IN Haraguchi, Kazuhiro; Tanaka, Hiromichi; Myasaka, Sada

PA Yamasa Shoyu Kk, Japan

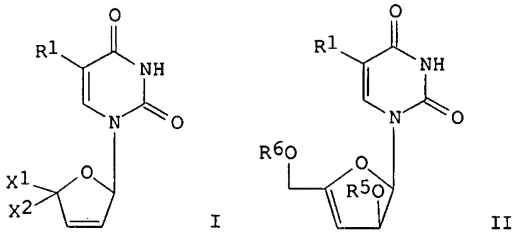
SO Jpn. Kokai Tokkyo Koho, 7 pp.

McIntosh

CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05230058	A	19930907	JP 1992-72915	19920224
PRAI	JP 1992-72915		19920224		

OS CASREACT 120:164819; MARPAT 120:164819
GI



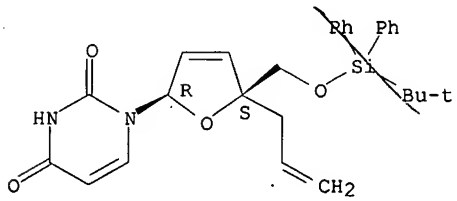
I II

AB The title compds. I [R1 = H, halo, lower alkyl; (X1, X2) = (R2, CH2OR3), (CH2OR3, R2); R2 = allyl, 2-alkylallyl, cycloalkanon-2-yl, R4CH2, cyano; R3 = H, protective group; R4 = acyl], which show antiviral or antitumor activity (no data), are prepared by treating nucleosides II (R1 = same as I; R5 = acyl; R6 = protective group) with organosilicon compds. in presence of Lewis acids. II (R1 = H, R5 = Ac, R6 = SiPh2CMe3) (preparation given) was treated with allyltrimethylsilane and SnCl4 in CH2Cl2 at ≤-70° for 7 h to give 74% I (R1 = H, X1 = CH2OSiPh2CMe3, X2 = allyl) and 5% I (R1 = H, X1 = allyl, X2 = CH2OSiPh2CMe3).

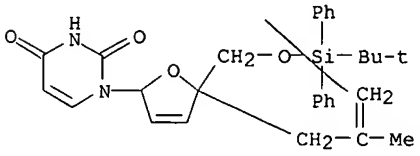
IT 142468-65-3P 142468-68-6P 142468-69-7P
142468-70-0P 142468-72-2P 142560-91-6P
142560-92-7P 142560-93-8P 142560-94-9P
142560-96-1P 145668-71-9P 153298-97-6P
153298-99-8P 153380-73-5P 153380-74-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as pharmaceutical)

RN 142468-65-3 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



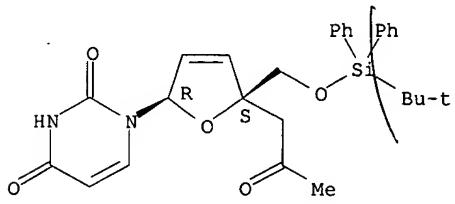
RN 142468-68-6 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-methyl-2-propenyl)- (9CI) (CA INDEX NAME)



RN 142468-69-7 CAPLUS

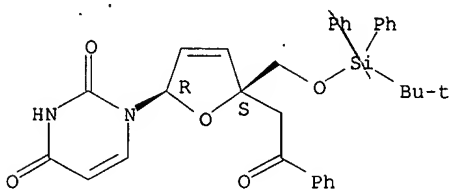
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



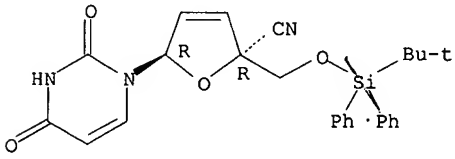
RN 142468-70-0 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



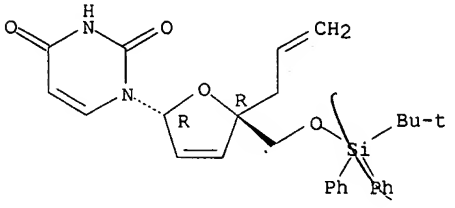
RN 142468-72-2 CAPLUS
CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



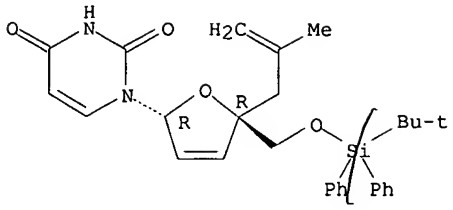
RN 142560-91-6 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



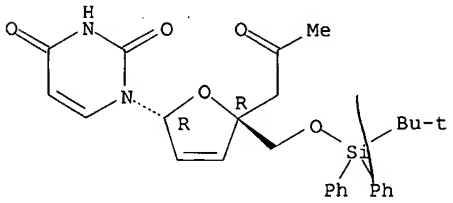
RN 142560-92-7 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-methyl-2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



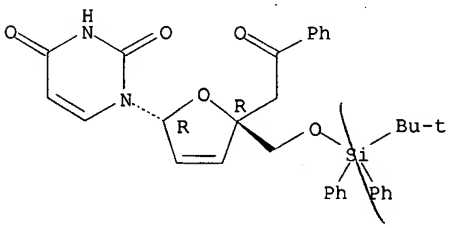
RN 142560-93-8 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxopropyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



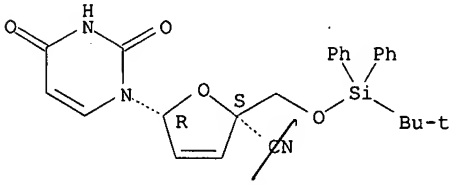
RN 142560-94-9 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxo-2-phenylethyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



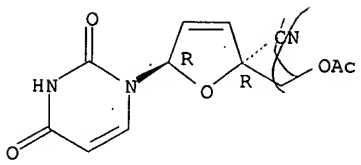
RN 142560-96-1 CAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



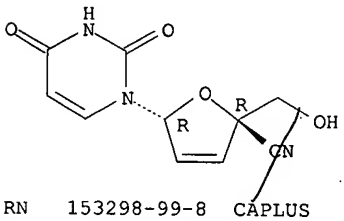
RN 145668-71-9 CAPLUS
CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-, 5'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



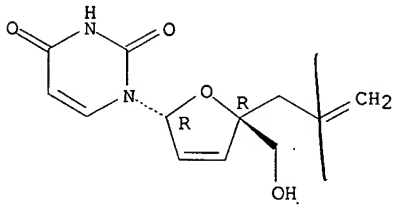
RN 153298-97-6 CAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2R-cis)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



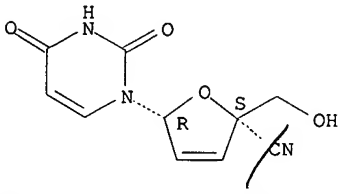
RN 153298-99-8 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[2,5-dihydro-5-(hydroxymethyl)-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



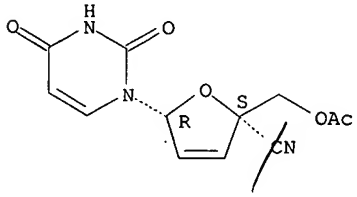
RN 153380-73-5 CAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-2-(hydroxymethyl)-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 153380-74-6 CAPLUS
CN 2-Furancarbonitrile, 2-[(acetyloxy)methyl]-5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2,5-dihydro-, (2S-trans)- (9CI) (CA INDEX NAME)

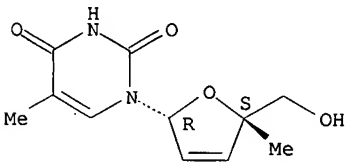
Absolute stereochemistry.



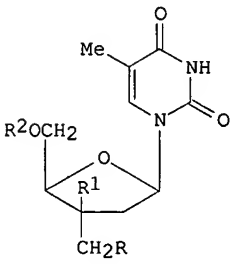
L4 ANSWER 21 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1994:94832 CAPLUS
DN 120:94832

TI Rational design for potentially antitumor and/or antiviral nucleosides
AU Ohrui, Hiroshi; Waga, Toshiaki; Miyakawa, Isao; Ueno, Akihiro; Meguro, Hiroshi
CS Fac. Agric., Tohoku Univ., Aobaku, 981, Japan
SO Nucleic Acids Symposium Series (1993), 29(Second International Symposium on Nucleic Acids Chemistry), 93-4
CODEN: NACSD8; ISSN: 0261-3166
DT Journal
LA English
AB Several 4'-C-Me nucleosides, pyranoid and furanoid nucleosides have been synthesized according to the authors' rational design for anti-tumor or/and anti-viral nucleosides, and the biol. activities of these nucleosides so far tested are described.
IT 151989-82-1
RL: BIOL (Biological study)
(HIV inhibition by)
RN 151989-82-1 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 22 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1994:54874 CAPLUS
DN 120:54874
TI Synthesis of 1-(2,3-dideoxy-4-C-methyl-β-D-glycero-pent-2-enofuranosyl)thymine, 1-(2,3-dideoxy-4-C-methyl-β-D-glycero-pentofuranosyl)thymine and 1-(4-C-azidomethyl-2-deoxy-β-D-threo-pentofuranosyl)thymine
AU Hrebabecky, Hubert; Holy, Antonin
CS Inst. Org. Chem. Biochem., Acad. Sci. Czech Republic, Prague, 166 10, Czech Rep.
SO Collection of Czechoslovak Chemical Communications (1993), 58(7), 1668-74
CODEN: CCCCAK; ISSN: 0010-0765
DT Journal
LA English
GI



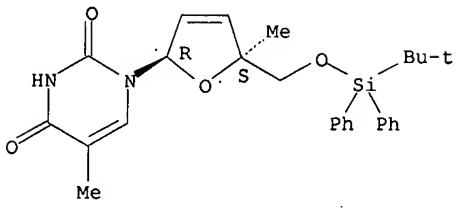
I

Cited

AB Title compds., e.g. I (R = N3, OH R2 = H; R-R2 = H), were prepared from I (R = OH, R1 = OR3, R2R3 = CMe2) and tested in vitro on inhibitory activity against replication of HIV-1 and HSV-2in CEM and MT-4 cells.
IT 151989-81-0P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and desilylation of)
RN 151989-81-0 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-C-methyl- (9CI) (CA INDEX NAME)

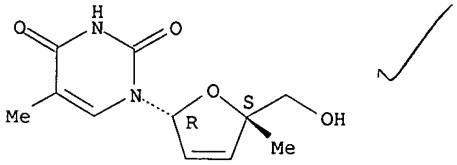
McIntosh

Absolute stereochemistry.



IT 151989-82-1P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and reduction of)
RN 151989-82-1 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-C-methyl- (9CI) (CA INDEX NAME)

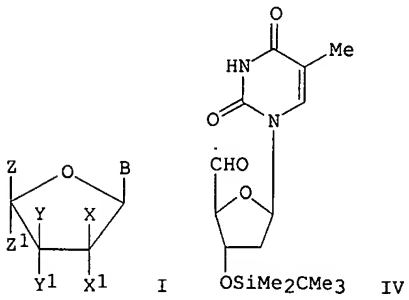
Absolute stereochemistry.



L4 ANSWER 23 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1993:539703 CAPLUS
DN 119:139703
TI Preparation of antiviral 4'-substituted nucleosides
IN O-Yang, Counde; Walker, Keith A. M.; Kurz, Walter; Wu, Helen Y.
PA Syntex (U.S.A.) Inc., USA
SO U.S., 29 pp.
CODEN: USXXAM
DT Patent
LA English
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5192749	A	19930309	US 1990-526485	19900521
PRAI	US 1990-526485		19900521		

OS MARPAT 119:139703
GI



I

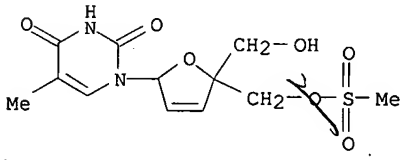
IV

AB Nucleosides I [B = purinyl, pyrimidinyl, X = X1 = H; Y = H; Y1 = OH, H; Y1X1 = bond, Z = HO[P(O)(OH)O]nCH2, HOPH(O)OCH2, n = 0-3; Y1Z = cyclic phosphate, Z1 = cyano, Me, CH2N3, CH2J, J = halo; Z1Y1 = CH2O] and their pharmaceutically acceptable esters, ethers, amides, N-acyl moieties and salts were prepared as virucides including HIV inhibition)(no data). Thus, 4'-methylthymidine (II) and its 4'-isomer (III) were prepared from 5'-O-(dimethoxytrityl)thymidine via silylation, detritylation, and oxidation

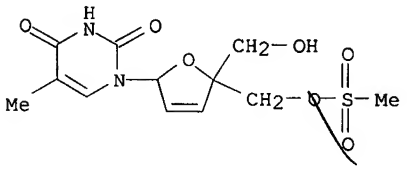
to give the pentodialdofuranosylthymine IV. Hydroxymethylation of IV followed by mesylation and iodination gave the 4'-epimers of I (B = thyminyl, X = X1 = Y = H, Y1 = OSiMe2CMe3, Z, Z1 = CH2OH, CH2I). Hydrogenolysis/deiodination of the latter followed by desilylation gave II and III.

IT 139926-02-6P 140145-76-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and azidolysis of)

RN 139926-02-6 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-[[(methylsulfonyl)oxy]methyl]- (9CI) (CA INDEX NAME)

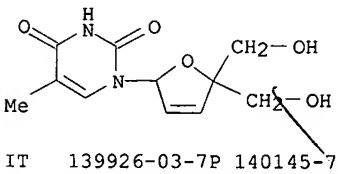


RN 140145-76-2 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-(hydroxymethyl)-, 5'-methanesulfonate (9CI) (CA INDEX NAME)



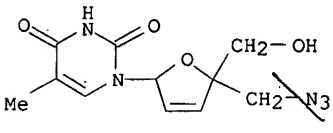
IT 139926-01-5P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and mesylation of)

RN 139926-01-5 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)

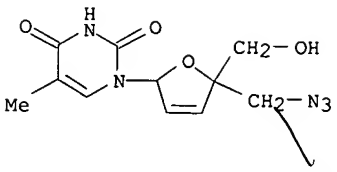


IT 139926-03-7P 140145-77-3P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as antiviral agent in AIDS treatment)

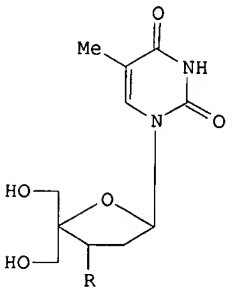
RN 139926-03-7 CAPLUS
CN Thymidine, 4'-(azidomethyl)-2',3'-didehydro-3'-deoxy- (9CI) (CA INDEX NAME)



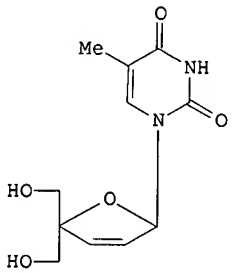
RN 140145-77-3 CAPLUS
CN Thymidine, 5'-azido-2',3'-didehydro-2',3',5'-trideoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)



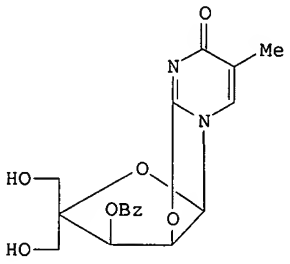
L4 ANSWER 24 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1993:473008 CAPLUS
DN 119:73008
TI Synthesis of 1-[3-azido-2,3-dideoxy-4-C-(hydroxymethyl)-α-L-threo-pentofuranosyl]thymine, 1-[2,3-dideoxy-4-C-(hydroxymethyl)-α-L-glycero-pentofuranosyl]thymine, and 1-[2,3-dideoxy-4-C-(hydroxymethyl)-α-L-glycero-pent-2-enofuranosyl]thymine
AU Hrebabecky, Hubert; Holy, Antonin
CS Inst. Org. Chem. Biochem., Prague, 166 10, Czech.
SO Collection of Czechoslovak Chemical Communications (1993), 58(2), 409-20
CODEN: CCCCAK; ISSN: 0010-0765
DT Journal
LA English
GI



I



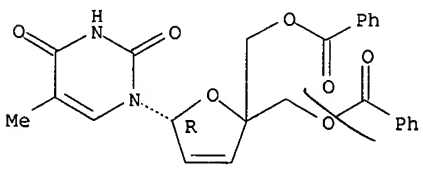
II



III

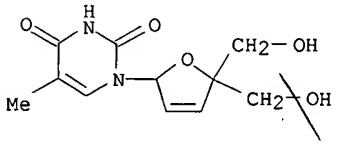
AB Title compds. I and II (R = H, N3) were prepared from 1-(2-O-Acetyl-3,5-di-O-benzoyl-4-C-benzoyloxymethyl-α-L-arabinofuranosyl)thymine via intermediate anhydro nucleoside III.
IT 148704-71-6P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and debenzoylation of)
RN 148704-71-6 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5,5-bis[(benzoyloxy)methyl]-2,5-dihydro-2-furanyl]-5-methyl-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



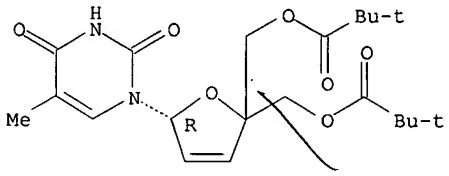
McIntosh

IT 139926-01-5P 148704-72-7P 148704-73-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 139926-01-5 CAPLUS
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)



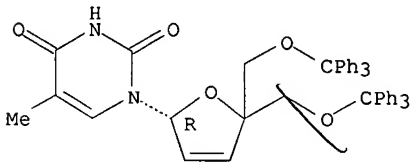
RN 148704-72-7 CAPLUS
CN Propanoic acid, 2,2-dimethyl-, [5-(3,4-dihydro-5-methyl-2,4-dioxo-1(2H)-pyrimidinyl)-2(5H)-furanylidene]bis(methylene) ester, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



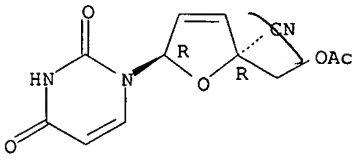
RN 148704-73-8 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[2,5-dihydro-5,5-bis[(triphenylmethoxy)methyl]-2-furanyl]-5-methyl-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

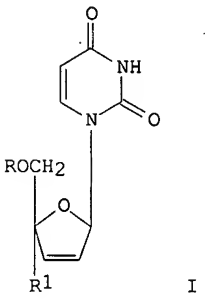


L4 ANSWER 25 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1993:70688 CAPLUS
DN 118:70688
TI Structure of a 4'-C-branched 2',3'-didehydro-2',3'-dideoxyuridine
AU Yamaguchi, Kentaro; Haraguchi, Kazuhiro; Tanaka, Hiromichi; Itho, Yoshiharu; Miyasaka, Tadashi
CS Sch. Pharm. Sci., Showa Univ., Tokyo, 142, Japan
SO Acta Crystallographica, Section C: Crystal Structure Communications (1992), C48(12), 2277-8
CODEN: ACSCEE; ISSN: 0108-2701
DT Journal
LA English
AB 4'-Cyano-2',3'-didehydro-2',3'-dideoxyuridine 5'-acetate is monoclinic, space group P21, with a 14.870(1), b 5.411(1), c 8.150(1) Å. and β 95.71(2)°; Z = 2, dc = 1.411; R = 0.047, Rw = 0.046 for 1056 reflections. Atomic coordinates are given. The N-glucoside torsion angle χ has a value of -82.7(3)° in the anti range. The C4'-C5' side-chain conformation is +sc with γ = 47.2(4)°. The sugar ring is essentially planar. The conformational parameters are in accordance with the IUPAC-IUB Joint Commission on Biochem. Nomenclature guidelines.
IT 145668-71-9
RL: PRP (Properties)
(crystal structure of)
RN 145668-71-9 CAPLUS
CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-, 5'-acetate (9CI) (CA INDEX NAME)

Absolute stereochemistry.



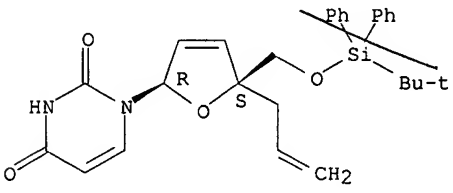
L4 ANSWER 26 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1992:470218 CAPLUS
DN 117:70218
TI Stereoselective synthesis of 4'-C-branched 2',3'-didehydro-2',3'-dideoxy nucleosides based on tin tetrachloride-promoted allylic rearrangement
AU Haraguchi, Kazuhiro; Tanaka, Hiromichi; Itoh, Yoshiharu; Saito, Shigeru; Miyasaka, Tadashi
CS Sch. Pharm. Sci., Showa Univ., Tokyo, 142, Japan
SO Tetrahedron Letters (1992), 33(20), 2841-4
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
OS CASREACT 117:70218
GI



I

AB Based on SnCl4-promoted allylic rearrangement between a 3',4'-unsatd. uracil nucleoside and organosilicon reagents, stereoselective introduction of carbon functionalities to the 4'-position has been accomplished, disclosing a new entry for a series of 4'-C-branched nucleosides, e.g. I (R = Me3CPh2Si, R1 = CH2CH:CH2, CH2CMe:CH2, CN, phenacyl), of biol. interest.
IT 142468-65-3P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and desilylation of)
RN 142468-65-3 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



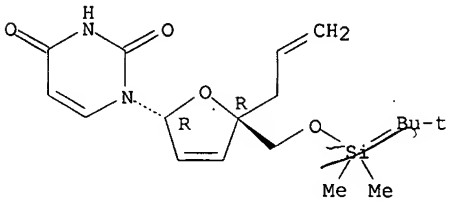
IT 142468-66-4P 142468-68-6P 142468-69-7P
142468-70-0P 142468-72-2P 142560-91-6P

McIntosh

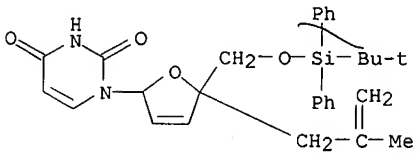
142560-92-7P 142560-93-8P 142560-94-9P
142560-96-1P 142562-05-8P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

RN 142468-66-4 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)dimethylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

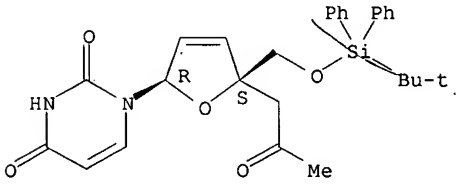


RN 142468-68-6 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-methyl-2-propenyl)- (9CI) (CA INDEX NAME)



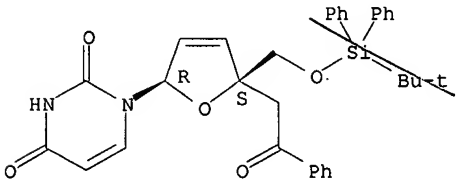
RN 142468-69-7 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxopropyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



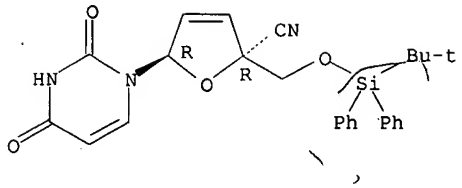
RN 142468-70-0 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]-4'-(2-oxo-2-phenylethyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



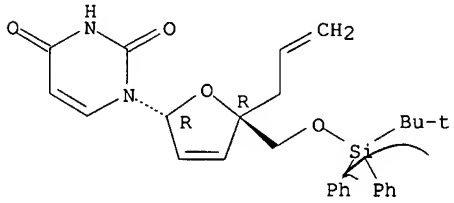
RN 142468-72-2 CAPLUS
CN Uridine, 4'-cyano-2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)diphenylsilyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



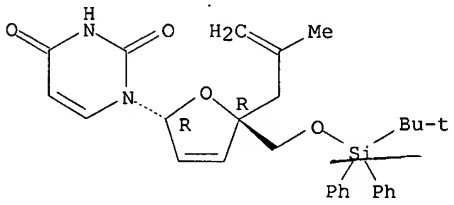
RN 142560-91-6 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



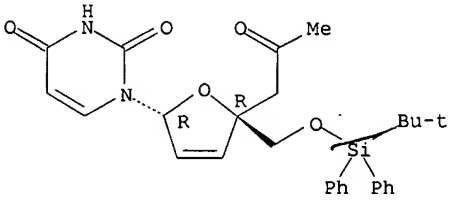
RN 142560-92-7 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-methyl-2-propenyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



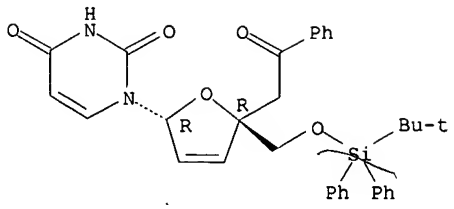
RN 142560-93-8 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxopropyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



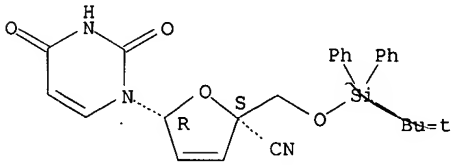
RN 142560-94-9 CAPLUS
CN 2,4(1H,3H)-Pyrimidinedione, 1-[5-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-5-(2-oxo-2-phenylethyl)-2-furanyl]-, (2R-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



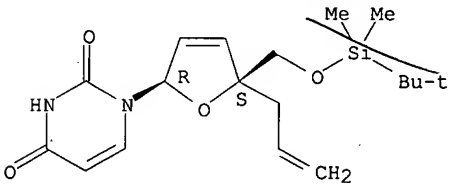
RN 142560-96-1 CAPLUS
CN 2-Furancarbonitrile, 5-(3,4-dihydro-2,4-dioxo-1(2H)-pyrimidinyl)-2-[[[(1,1-dimethylethyl)diphenylsilyl]oxy]methyl]-2,5-dihydro-, (2S-trans)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

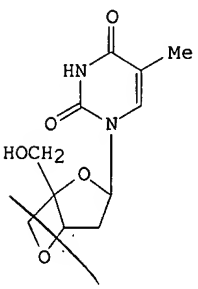


RN 142562-05-8 CAPLUS
CN Uridine, 2',3'-didehydro-2',3'-dideoxy-5'-O-[(1,1-dimethylethyl)dimethylsilyl]-4'-(2-propenyl)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



L4 ANSWER 27 OF 27 CAPLUS COPYRIGHT 2007 ACS on STN
AN 1992:174641 CAPLUS
DN 116:174641
TI 4'-Substituted nucleosides as inhibitors of HIV: an unusual oxetane derivative
AU O-Yang, Counde; Kurz, Walter; Eugui, Elsie M.; McRoberts, Mary Jane; Verheyden, Julien P. H.; Kurz, Lilia J.; Walker, Keith A. M.
CS Syntex Res., Palo Alto, CA, 94304, USA
SO Tetrahedron Letters (1992), 33(1), 41-4
CODEN: TELEAY; ISSN: 0040-4039
DT Journal
LA English
GI



I

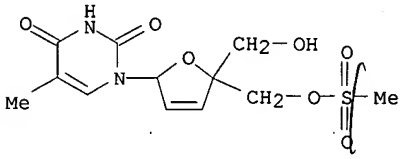
McIntosh

AB A number of derivs. of 4'-hydroxymethylthymidine were prepared The fused oxetane derivative I inhibited HIV replication in A301 (Alex) cells with remarkably low bone marrow toxicity.

IT 139926-02-6P 140145-76-2P
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation and azidolysis of)

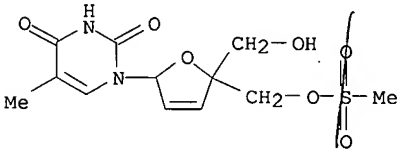
RN 139926-02-6 CAPLUS

CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-[[(methylsulfonyl)oxy]methyl]- (9CI) (CA INDEX NAME)



RN 140145-76-2 CAPLUS

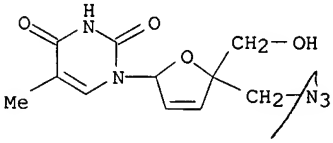
CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-(hydroxymethyl)-, 5'-methanesulfonate (9CI) (CA INDEX NAME)



IT 139926-03-7P 140145-77-3P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and virucidal activity of)

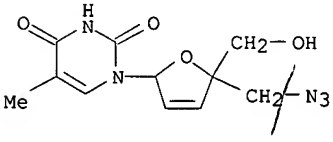
RN 139926-03-7 CAPLUS

CN Thymidine, 4'-(azidomethyl)-2',3'-didehydro-3'-deoxy- (9CI) (CA INDEX NAME)



RN 140145-77-3 CAPLUS

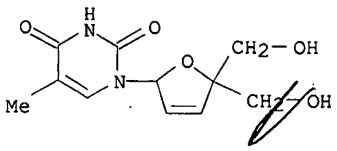
CN Thymidine, 5'-azido-2',3'-didehydro-2',3',5'-trideoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)



IT 139926-01-5P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation, partial mesylation, and virucidal activity of)

RN 139926-01-5 CAPLUS

CN Thymidine, 2',3'-didehydro-3'-deoxy-4'-(hydroxymethyl)- (9CI) (CA INDEX NAME)



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=> d his

     (FILE 'HOME' ENTERED AT 10:35:34 ON 15 APR 2007)

     FILE 'REGISTRY' ENTERED AT 10:36:07 ON 15 APR 2007
L1             STRUCTURE UPLOADED
L2           3 S L1 SSS SAM
L3          65 S L1 FULL

     FILE 'CAPLUS' ENTERED AT 10:36:56 ON 15 APR 2007
L4          27 S L3
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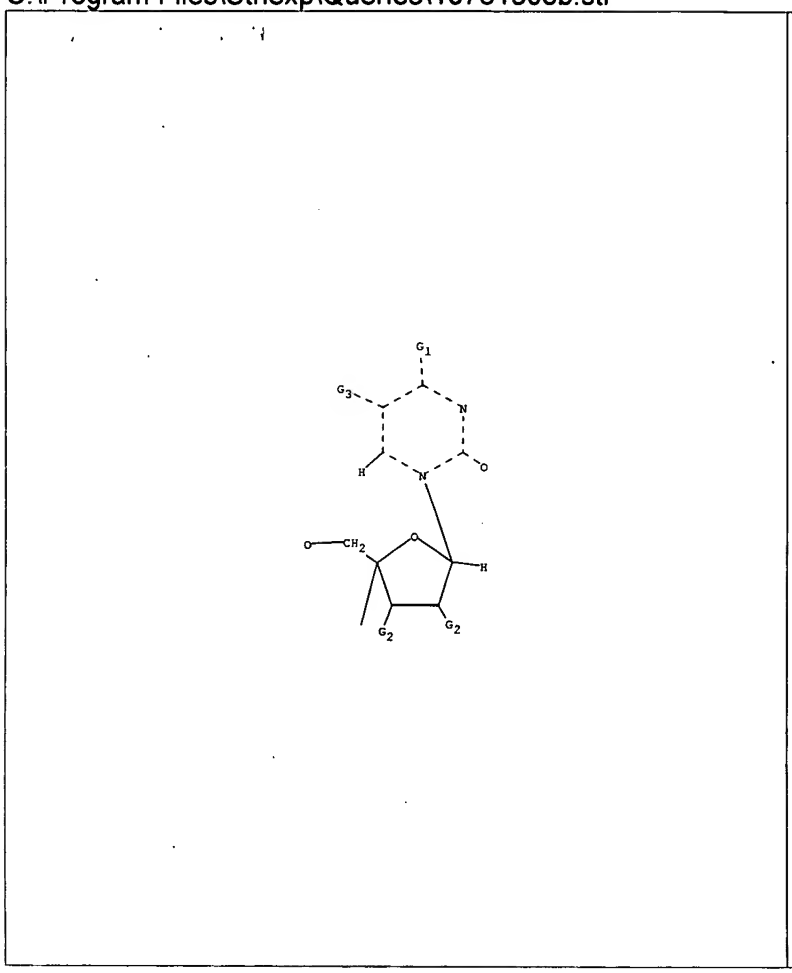

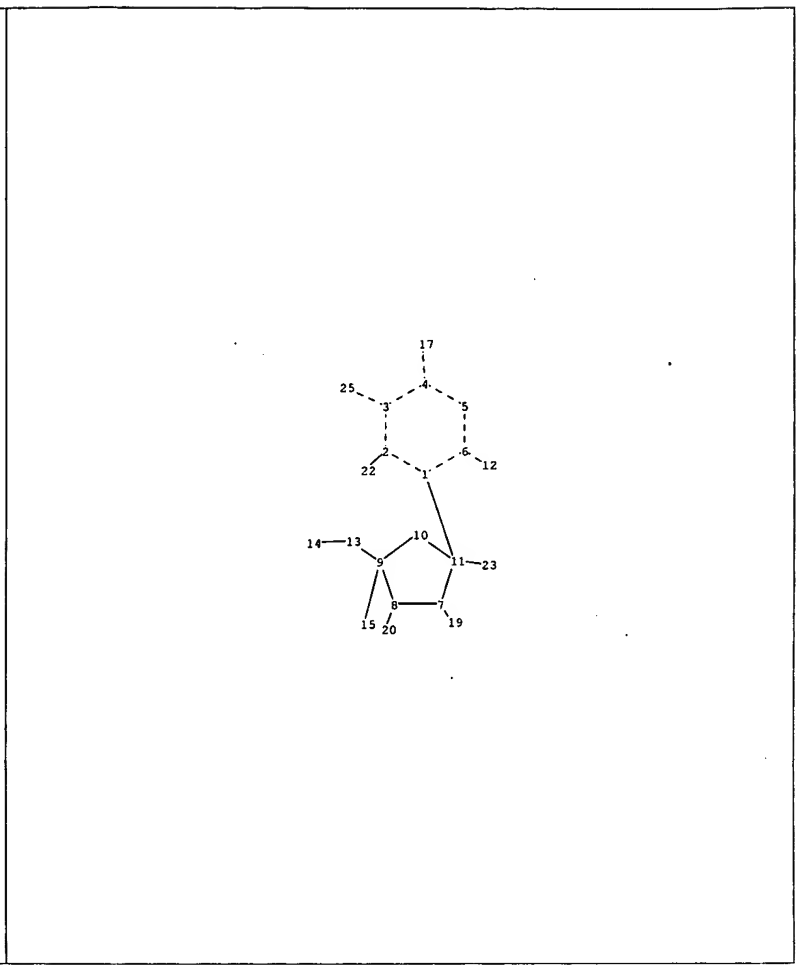

chain nodes :
12 13 14 15 17 19 20 22 23 25
ring nodes :
1 2 3 4 5 6 7 8 9 10 11
chain bonds :
1-11 2-22 3-25 4-17 6-12 7-19 8-20 9-13 9-15 11-23 13-14
ring bonds :
1-2 1-6 2-3 3-4 4-5 5-6 7-8 7-11 8-9 9-10 10-11
exact/norm bonds :
1-2 1-6 1-11 2-3 3-4 3-25 4-5 4-17 5-6 6-12 7-8 7-11 7-19 8-9 8-20 9-10 10-11
exact bonds :
2-22 9-13 9-15 11-23 13-14

G1:O,NH

G2:H,Cl,Br,F,I

G3:C,H,X

Match level :
1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom 11:Atom 12:CLASS 13:CLASS 14:CLASS
15:CLASS 17:CLASS 19:CLASS 20:CLASS 22:CLASS 23:CLASS 25:CLASS